Update: 4-Year CTE Strategic Plan Planning Process Board Work Session

December 10, 2020
Objectives

• To share our vision for career readiness for students
• To provide an update on our progress to date regarding CTE program placements
• To highlight our process for gathering feedback and making decisions
Ensuring that our students are career ready requires City Schools to re-envision our work to include both traditional CTE programming and broader student supports.

- Our community identified ensuring that our students gain the knowledge and skills that put them on the path towards an in-demand, high wage career as a top priority.
  - In-demand, high wage careers was a consistent theme in the over 80 meetings and conversations with our students, families, schools and communities.

- A career readiness experience requires the collective commitment from the broader Baltimore community.
  - We are working to expand and deepen our partnerships with the workforce and business community, industry partners, the higher education sector, alumni, and philanthropy.

- Proposed CTE program changes will be fully in place by school year 2023-24.
  - We are committed to allowing students currently in 10th grade to finish their CTE pathway at their current school whenever possible.
  - We are committed to providing a pathway for as many affected teachers as possible to remain employed with City Schools.

We will reallocate CTE resources in order to invest in career readiness holistically.

- We will support all students in gaining awareness and exposure to career opportunities.
- We will support every high school in developing a career readiness plan.

We will support all students in gaining awareness and exposure to career opportunities.
Current Context and Vision of Career Readiness
City Schools has been engaged in a two-year process to review, reflect on, and improve the opportunities available to our students.

- The Fund for Educational Excellence released its “Broken Pathways” report.
- City Schools contracts with Project Evident to begin program-level analysis of CTE challenges and opportunities.
- Education Strategy Group released its report, “Preparing All Students for Economic and Career Success.”
- CTE plan is developed with a goal of reorganized programming announced by Feb 2021 and implemented by SY 2023-24.
Our results drove us to take a comprehensive review of our programming, school and student supports, partnerships, and resource allocation.

<table>
<thead>
<tr>
<th></th>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,157</td>
<td>1,500</td>
<td>865</td>
<td>253</td>
</tr>
<tr>
<td>Enrolled</td>
<td></td>
<td>48%</td>
<td>27%</td>
<td>8%</td>
</tr>
</tbody>
</table>

**Enrolled** = A student who enrolls in a course pathway

**Concentrator** = A student who completes 2 or more courses within a pathway

**Completer** = A student who completes the full 4-course sequence for the pathway

**Certified** = A student who obtains industry recognized credential
Our vision for career readiness is a system that...

- **Prioritizes preparing students for living wage**, in-demand occupations consistent with student demand
  - Provides our students with a path towards a family sustaining wage
  - Includes the voices of our students, families and community
  - Supports our students’ successful completion of their pathway of choice

- **Is relevant and rigorous**
  - Our certifications will be better aligned with industry expectations
  - There will be greater coherence to the postsecondary pathways and our local workforce communities
  - Will be better integrated with work-based learning experiences

- **Is more accessible** to our diverse student populations and more **equitably distributed** across the city
  - Our students can get to the program within a reasonable amount of time
  - Our programs are also designed to meet the needs of our English language learners and our students with disabilities.

- **Uses our resources effectively**, efficiently, and is sustainable and **supportive of our school community**
  - Our teachers, principals, and schools have sufficient support – time and resources -- to deliver quality programming
  - Our schools are co-designers in our process
Career Readiness & Advising

- Academic
- Technical
  - Including career & technical education (CTE) and other training
- Employability

Career Awareness
Career Exploration
Career Preparation/Experience

Student Advising
City Schools Career Readiness Experiences

All Students Will Receive:

- Career Awareness and Exposure
- Academic and Career Plans and Advising
- Career Related Extra-Curricular Activities
- Work Based Learning Opportunities
  - Transition Support
- SAT Exams and AP Expansion

Students Will Choose:

- Multi-year Career and Technical Programming
  - Technical Short-Term Programming
    - Industry Certifications
- Academic Support beyond Core Classes
  - Career-Specific Dual Enrollment
  - Academic Dual Enrollment
Example Proposed Career Readiness Plan
Example Baltimore City Schools High School

School Number: XXX
Enrollment (2019-2020): 900

Career Readiness Opportunities (SY2023-2024)

CTE Pathways
• JROTC
• Law & Leadership

Work-based Learning Opportunities
• Paid internship opportunities that could lead to employment

Other
• Academic dual enrollment

Changes (from SY2020-2021)

Relocation of CTE Pathways
• Fire EMT (x school; 1.2 miles away)
• Interactive Media Production (alternative computer science pathway @ "y" school, 2 miles away)
To move from where we are to where our students, families, and schools are well-supported requires authentic community partnerships.

Our partners and community play a critical role in ensuring that our students have a well-rounded experience that prepares them for college and career. Examples of how we can collectively support our students are included below:

<table>
<thead>
<tr>
<th>Our Students' Experience</th>
<th>Support from City Schools</th>
<th>How our Partners and Community Can Support</th>
</tr>
</thead>
</table>
| Rigorous, relevant, multi-year programming | • Supporting teacher positions  
• Purchasing curriculum, materials, equipment and & supplies  
• Providing professional learning opportunities for our teachers  
• Providing funding for certification exams  
• Coordinating work-based learning experiences | • Supporting with certification alignment to ensure that it matches industry requirements  
• Supporting with curriculum redesign  
• Offering internship / apprenticeship opportunities  
• Providing supplemental materials and supplies for pathways  
• Providing mentorship to our students  
• Developing articulation agreements that give our students credit for completed certifications |
Our progress to date and preliminary recommendations
To identify in-demand, high-wage occupations and help us prioritize pathway selection, we conducted a labor market analysis.

To ensure that we are providing a rigorous, relevant curriculum we reviewed our student performance data, from enrollment through to completion and certification.

To facilitate the wisest use of our resources, we assessed our student enrollment patterns to better align and reallocate our time and money.

To support execution, we are reviewing facilities conditions and spacing, our staffing allocations and hiring successes, and resources we provide to our schools and students.

We conducted school site visits and student focus groups.

We engaged with teachers and principals.

We had over 80 discussions with stakeholders.

We had 26 conversations with school principals.

We met with 12 school communities.

We hosted a community town hall.

We released a survey to gather community feedback.

For more details, see Appendix D: data informing our decision-making.
Our conversations with our school community has informed our work and resulted in concrete changes.

Students prepared to transition to the job market, military, or college
- Digital Harbor

An industry certification than can lead to a livable wage
- Patterson

Provide rich and diverse opportunities for young women
- Western

Serious partnerships with the district and employers willing to hire our kids
- Digital Harbor

Opportunities to earn college credit while still in high school
- Patterson

To be challenged, gain skills, feel happy and loved
- Ben Franklin
Based on our review of existing evidence and our conversations with the community, we have adjusted our proposal.

- **Maintaining programs with a deep connection to the school**: Print education will remain at Mergenthaler Vocational-Technical High School and business at Reginald F. Lewis

- **Expanding pathways that lead directly to a living wage**, i.e., health & bio sciences, information technology, and construction & development

- **Redistributing programs** to ensure equity by adding more programs that would lead to a living wage in communities with a low community condition index, adding programs to the east side, and making other programs more accessible

- **Re-envisioning our teacher** allocations and curriculum to enhance some pathways
  - Adding an “entrepreneurship” course (if a business pathway is not possible) to schools with cosmetology and/or culinary arts to make additional living-wage occupations available to our students.

- **Adding teachers to pathways** to ensure successful curriculum delivery, i.e., cosmetology and engineering

- **Adding teachers to pathways** to “pilot” a 9th grade model to provide student with additional choice and opportunity to gain stackable credentials
  - Mergenthaler Vocational-Technical High School, Vivien T. Thomas Medical Arts Academy, Edmondson Westside High School, Carver Vocational-Technical High School
These decisions have changed what we originally proposed, resulting in a new “Scenario 5”

<table>
<thead>
<tr>
<th></th>
<th>Status Quo</th>
<th>Scenario 1: Thematic</th>
<th>Scenario 2: Centers Option 1</th>
<th>Scenario 3: Centers Option 2</th>
<th>Scenario 4: Pathways</th>
<th>Scenario 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Schools with CTE</strong></td>
<td>24 Schools</td>
<td>22 Schools</td>
<td>19 Schools</td>
<td>19 Schools</td>
<td>28 Schools</td>
<td>18 Schools</td>
</tr>
<tr>
<td>Programming</td>
<td>155 Positions*</td>
<td>136 Positions*</td>
<td>139 Positions*</td>
<td>138 Positions*</td>
<td>125 Positions*</td>
<td>137 Positions*</td>
</tr>
<tr>
<td><strong>Clusters</strong></td>
<td>12 Clusters</td>
<td>10 Clusters</td>
<td>10 Clusters</td>
<td>10 Clusters</td>
<td>10 Clusters</td>
<td>11 Clusters</td>
</tr>
<tr>
<td><strong>Pathways #</strong></td>
<td>41 Pathways</td>
<td>34 Pathways</td>
<td>34 Pathways</td>
<td>34 Pathways</td>
<td>33 Pathways</td>
<td>37 Pathways</td>
</tr>
</tbody>
</table>

* Position count includes JROTC positions
Scenario 5 reduces the total number of schools supported with CTE positions and decreases the number of clusters and pathways.

<table>
<thead>
<tr>
<th>Schools with CTE Programming</th>
<th>Status Quo</th>
<th>Scenario 5</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24 Schools</td>
<td>18 Schools</td>
<td>6 fewer schools</td>
</tr>
<tr>
<td></td>
<td>155 Positions*</td>
<td>137 Positions*</td>
<td>18 fewer positions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Status Quo</th>
<th>Scenario 5</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12 Clusters</td>
<td>11 Clusters</td>
<td>1 fewer cluster</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pathways</th>
<th>Status Quo</th>
<th>Scenario 5</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41 Pathways</td>
<td>37 Pathways</td>
<td>4 fewer pathways</td>
</tr>
</tbody>
</table>

* Total position count includes JROTC positions; however, there are no reductions of JROTC positions in Scenario 5.
By 2023-2024, we will have 8,700 available CTE seats, which is significantly more seats than the number of CTE students enrolled in our schools last year.

<table>
<thead>
<tr>
<th>Enrollment (SY19-20)</th>
<th>Available Seats* (SY23-24)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>1855</td>
</tr>
<tr>
<td>At or Above a Living Wage**</td>
<td>3815</td>
</tr>
<tr>
<td>Otherα</td>
<td>420</td>
</tr>
</tbody>
</table>

* Seat availability was calculated based on an assumption of the following teaching load: each teacher could teach 3 sections of 25 students.

** Living wage is determined as living wage for 1 adult with 0 children in Baltimore City, according to the MIT Living Wage calculator (http://https://livingwage.mit.edu/).

***JROTC became a CTE program effective SY2021, those students are not included for comparison purposes.

α Other category includes Career Research and Development (CRD) and Home Builders Institute. CRD cannot be directly aligned to specific occupations with wage data and we are working with our industry partners to align HBI with high-wage occupation. This category also includes 2 FTEs for a to be determined new high-wage, in-demand pathway.

We intend to increase the number of seats in pathways that offer a student a path towards a living wage occupation.
Our programming is being designed to help meet students and schools where they are while ensuring equity of access and opportunity across the city.

**Increasing breadth and depth of CTE programs**
1. Ben Franklin HS
2. Carver Vocational-Technical HS

**Increasing depth, decreasing breadth of CTE programs**
1. Edmondson-Westside HS
2. Forest Park HS
3. Mergenthaler Vocational-Technical HS
4. Patterson HS
5. New Era Academy

**Strengthening current CTE programs**
1. Baltimore Design School
2. Baltimore Polytechnic Institute
3. Digital Harbor HS
4. Joseph C. Briscoe Academy
5. Paul Laurence Dunbar HS
6. The Reach! Partnership School
7. Vivien T. Thomas Medical Arts Academy
8. Western HS

**Re-envisioned career readiness programming**
1. Academy for College and Career Exploration
2. Achievement Academy at Harbor City HS
3. Augusta Fells Savage Institute of Visual Arts
4. Bluford Drew Jemison STEM Academy West
5. Excel Academy at Francis M. Wood High
6. National Academy Foundation
7. Frederick Douglass HS
8. Reginald F. Lewis HS

See Appendix C for pathway changes

High schools not listed here will still develop career readiness plans and receive supports from the Career Readiness office.
Based on the review of existing evidence and community conversations, we have adjusted our recommendations.

<table>
<thead>
<tr>
<th>Sunset</th>
<th>Reduce / Consolidate</th>
<th>Maintain</th>
<th>Grow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs that do not lead to a living wage occupation and for which there is limited student demand</td>
<td>Programs that do not lead to a living wage occupation and for which there is student demand OR for which there is too much supply</td>
<td>Programs that lead to a living wage occupation and for which there is student demand</td>
<td>Programs that lead to a living wage occupation and for which there is labor market &amp; student demand</td>
</tr>
<tr>
<td>Career Research &amp; Development</td>
<td>Interactive Media Production</td>
<td>All business pathways</td>
<td></td>
</tr>
<tr>
<td>Print Education</td>
<td>Print Education</td>
<td>Nursing</td>
<td></td>
</tr>
<tr>
<td>Lodging Management</td>
<td>Baking (transition to Culinary Arts)</td>
<td>Teacher Academy of Maryland</td>
<td></td>
</tr>
<tr>
<td>Curriculum for Agriculture Science Education (CASE)</td>
<td>Culinary</td>
<td>HVAC</td>
<td></td>
</tr>
<tr>
<td>Homeland Security: Criminal Justice</td>
<td>Cosmetology and Cosmetic Services</td>
<td>Electrical</td>
<td></td>
</tr>
<tr>
<td>Data Processing Technician</td>
<td>PLTW BioMedical Sciences</td>
<td>Plumbing</td>
<td></td>
</tr>
<tr>
<td>Early Childhood (transition to teaching)</td>
<td>CISCO Networking</td>
<td>Surgical Technician</td>
<td></td>
</tr>
<tr>
<td>Masonry</td>
<td>Homeland Security: GIS</td>
<td>Welding</td>
<td></td>
</tr>
<tr>
<td>Flooring</td>
<td>Construction Design &amp; Management</td>
<td>Dental Technician</td>
<td></td>
</tr>
<tr>
<td>Interactive Media Production</td>
<td>PLTW Pre-engineering</td>
<td>Pharmacy Technician</td>
<td></td>
</tr>
<tr>
<td>Print Education</td>
<td>Masonry</td>
<td>Fire Emergency Medical Tech</td>
<td></td>
</tr>
<tr>
<td>Baking (transition to Culinary Arts)</td>
<td>Homelnd Security: Criminal Justice</td>
<td>Law &amp; Leadership</td>
<td></td>
</tr>
<tr>
<td>Culinary</td>
<td>All business pathways</td>
<td>Computer science</td>
<td></td>
</tr>
<tr>
<td>Cosmetology and Cosmetic Services</td>
<td>Law &amp; Leadership</td>
<td>Advanced Manufacturing</td>
<td></td>
</tr>
<tr>
<td>PLTW BioMedical Sciences</td>
<td>Computer science</td>
<td>Automotive Technician</td>
<td></td>
</tr>
<tr>
<td>CISCO Networking</td>
<td>Dental Technician</td>
<td>Auto-body Collision Repair</td>
<td></td>
</tr>
<tr>
<td>Homeland Security: GIS</td>
<td>Pharmacy Technician</td>
<td>Local Seagoing/Maritime</td>
<td></td>
</tr>
<tr>
<td>Construction Design &amp; Management</td>
<td>Fire Emergency Medical Tech</td>
<td>Lodging Management (NAF Hospitality and Tourism)</td>
<td></td>
</tr>
<tr>
<td>PLTW Pre-engineering</td>
<td>Fire Emergency Medical Tech</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masonry</td>
<td>Fire Emergency Medical Tech</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homeland Security: Criminal Justice</td>
<td>Law &amp; Leadership</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Law &amp; Leadership</td>
<td>Business</td>
<td></td>
<td></td>
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<tr>
<td>Business</td>
<td>Computer Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>Fire Emergency Medical Tech</td>
<td></td>
<td></td>
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<tr>
<td>Fire Emergency Medical Tech</td>
<td>|</td>
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</tr>
</tbody>
</table>

For CTE programs provided by City Schools, as a part of our CTE plan, we will **strengthen** the program to ensure alignment with industry certification and occupational requirements.
As we work to meet the needs of our students and prepare them to be career ready, we are listening to and learning from our teachers.

We have sought teacher feedback:
- Met with BTU leadership
- Co-hosted nine teacher town halls

We are making changes based on what we learn:
- Revisiting our curriculum with teacher input
- Purchasing / upgrading materials, equipment and supplies
- Creating more sustainable programming that facilitates shared learning

And will support teachers throughout the process:
- We will help our teachers prepare for any curriculum or certification changes
- We will limit, to the fullest extent possible, the number of teachers negatively affected by these changes
- In the next six months, we will partner with Human Capital to identify potentially impacted staff and have individual conversations with our teachers about potential options.
Next Steps
While we have additional activities to undertake before finalizing our recommendations, we are simultaneously preparing for implementation.

- **Dec ‘20**: Board Working Session
  - Walk through:
    1. Mergenthaler
    2. Edmondson
    3. Carver
  - Remaining School community meetings

- **Jan ‘21**: Planning
  - Meeting with workforce partners & industry
  - Meeting with teachers & principals for curriculum improvements

- **Feb ‘21**: Planning
  - HR and facilities planning
  - Multi-year budgeting: HR, facilities, and curriculum

- **Spring ‘21**: Planning
  - Feb: Board Presentation
  - Meeting with postsecondary partners

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*Baltimore City Public Schools*
To Engage Further

• Detailed documents available at www.baltimorecityschools.org/cte-plan

• Complete our survey: https://bit.ly/3gw0HOj

• Email us with questions:

  Dr. Rachel Pfeifer  
  Executive Director, College and Career Readiness  

  Kumasi Vines  
  Director, Career Readiness  
  cityschoolscteplanfeedback@bcps.k12.md.us

• We will share our final plan at the February 9 School Board meeting.
Appendices

• Appendix A: Stakeholder Engagement Summary and Survey Results
• Appendix B: School by School Proposals
• Appendix C: Pathway by Pathway Proposals
• Appendix D: Data Used to Inform Decision Making
Appendix A

Stakeholder Engagement Summary and Survey Results
We had over 80 meetings to get feedback. We will continue to meet with multiple stakeholders across the city as we finalize our recommendations.

We have met with:

- **Students & families** via school community meetings to learn about their values and priorities
- **Teachers** through focus group conversations hosted by BTU to understand their concerns and requirements
- **Principals** through one-on-one and focus group conversations to understand their concerns and requirements
- **Elected officials** including the mayor and city council president to identify any potential risks and opportunities
- **City Schools’ teams** to assess implementation feasibility—Office of New Initiatives, capital planning & facilities, human resources, and finance, and office of specialized services
- **Partner organizations** including MOED, BCCC, and National Academy Foundation Board to learn about opportunities, concerns, and develop joint strategies
To date, based on 48 responses to our survey the top three selections were:

- Pathways are aligned to in-demand **jobs that meet a living wage**.
- Programs are **accessible and equitably** distributed.
- Providing students with **on-the-job training** and opportunities to earn **industry certifications**.
### Appendix A.1. Principal Engagement

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sep 22</td>
<td>Augusta Fells Savage Institute of Visual Arts</td>
</tr>
<tr>
<td>2</td>
<td>Sep 25</td>
<td>Reginald F. Lewis HS</td>
</tr>
<tr>
<td>3</td>
<td>Sep 28</td>
<td>Coppin Academy</td>
</tr>
<tr>
<td>4</td>
<td>Sep 28</td>
<td>Baltimore Design School</td>
</tr>
<tr>
<td>5</td>
<td>Sep 29</td>
<td>Achievement Academy</td>
</tr>
<tr>
<td>6</td>
<td>Sep 30</td>
<td>REACH! Partnership School</td>
</tr>
<tr>
<td>7</td>
<td>Sep 30</td>
<td>Carver Vocational-Technical HS</td>
</tr>
<tr>
<td>8</td>
<td>Oct 1</td>
<td>Paul Laurence Dunbar HS</td>
</tr>
<tr>
<td>9</td>
<td>Oct 1</td>
<td>New Era Academy</td>
</tr>
<tr>
<td>10</td>
<td>Oct 8</td>
<td>Excel Academy</td>
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<tr>
<td>11</td>
<td>Oct 8</td>
<td>Western HS</td>
</tr>
<tr>
<td>12</td>
<td>Oct 8</td>
<td>Patterson HS</td>
</tr>
<tr>
<td>13</td>
<td>Oct 8</td>
<td>Edmondson-Westside HS</td>
</tr>
<tr>
<td>14</td>
<td>Oct 9</td>
<td>Benjamin Franklin HS</td>
</tr>
<tr>
<td>15</td>
<td>Oct 13</td>
<td>Digital Harbor HS</td>
</tr>
<tr>
<td>16</td>
<td>Oct 13</td>
<td>Bluford Drew Jemison STEM Academy West</td>
</tr>
<tr>
<td>17</td>
<td>Oct 14</td>
<td>National Academy Foundation</td>
</tr>
<tr>
<td>18</td>
<td>Oct 16</td>
<td>Baltimore Leadership School for Young Women</td>
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<td>Oct 19</td>
<td>Joseph C. Briscoe Academy</td>
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<td>20</td>
<td>Oct 21</td>
<td>Forest Park HS</td>
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<tr>
<td>21</td>
<td>Oct 23</td>
<td>Frederick Douglass HS</td>
</tr>
<tr>
<td>22</td>
<td>Oct 26</td>
<td>Academy for College and Career Exploration</td>
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<tr>
<td>23</td>
<td>Oct 28</td>
<td>Baltimore Polytechnic Institute</td>
</tr>
<tr>
<td>24</td>
<td>Nov 6</td>
<td>Green Street Academy</td>
</tr>
<tr>
<td>25</td>
<td>Nov 13</td>
<td>Mergenthaler Vocational-Technical HS</td>
</tr>
<tr>
<td>26</td>
<td>Nov 19</td>
<td>Independence HS</td>
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## Appendix A.2. - School Community Meetings

### Completed Meetings

<table>
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<tr>
<th>#</th>
<th>Date</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Oct 27</td>
<td>Digital Harbor HS</td>
</tr>
<tr>
<td>2</td>
<td>Oct 28</td>
<td>Patterson HS</td>
</tr>
<tr>
<td>3</td>
<td>Nov 11</td>
<td>Bluford Drew Jemison STEM Academy West</td>
</tr>
<tr>
<td>4</td>
<td>Nov 11</td>
<td>Benjamin Franklin HS</td>
</tr>
<tr>
<td>5</td>
<td>Nov 24</td>
<td>Western HS</td>
</tr>
<tr>
<td>6</td>
<td>Dec 1</td>
<td>Augusta Fells Savage Institute of Visual Arts</td>
</tr>
<tr>
<td>7</td>
<td>Dec 1-2</td>
<td>Carver Vocational-Technical HS</td>
</tr>
<tr>
<td>8</td>
<td>Dec 2-7</td>
<td>Mergenthaler Vocational-Technical HS</td>
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### Upcoming Meetings

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Dec 10</td>
<td>National Academy Foundation</td>
</tr>
<tr>
<td>12</td>
<td>Dec 10</td>
<td>REACH! Partnership School</td>
</tr>
<tr>
<td>13</td>
<td>Dec 16</td>
<td>Edmondson-Wesside HS</td>
</tr>
<tr>
<td>14</td>
<td>TBD</td>
<td>Reginald F Lewis HS</td>
</tr>
<tr>
<td>15</td>
<td>TBD</td>
<td>Forest Park HS</td>
</tr>
<tr>
<td>16</td>
<td>TBD</td>
<td>Frederick Douglass HS</td>
</tr>
<tr>
<td>17</td>
<td>TBD</td>
<td>Baltimore Polytechnic Institute</td>
</tr>
<tr>
<td>18</td>
<td>TBD</td>
<td>ACCE</td>
</tr>
<tr>
<td></td>
<td>Declined</td>
<td>Excel Academy</td>
</tr>
<tr>
<td></td>
<td>Declined</td>
<td>Achievement Academy</td>
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</table>
### Appendix A.3. Other Stakeholder Meetings

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Stakeholder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 28</td>
<td>Mayor Bernard &quot;Jack&quot; Young</td>
</tr>
<tr>
<td>2</td>
<td>Aug 28</td>
<td>City Council President Brandon Scott</td>
</tr>
<tr>
<td>3</td>
<td>Sep 1</td>
<td>City Schools Teaching and Learning Committee</td>
</tr>
<tr>
<td>4</td>
<td>Sep 8</td>
<td>Mayor's Office of Employment Development</td>
</tr>
<tr>
<td>5</td>
<td>Sep 16, 23</td>
<td>Legislative Briefing: City Council and Baltimore Delegation to Annapolis</td>
</tr>
<tr>
<td>6</td>
<td>Sep 21</td>
<td>Maryland Philanthropy Network</td>
</tr>
<tr>
<td>7</td>
<td>Sep 25</td>
<td>Senator Antonio Hayes</td>
</tr>
<tr>
<td>8</td>
<td>Sep 29</td>
<td>Delegate Nick J. Mosby</td>
</tr>
<tr>
<td>9</td>
<td>Oct 12</td>
<td>Special Education Community Advisory Council (SECAC)</td>
</tr>
<tr>
<td>10</td>
<td>Oct 12</td>
<td>Phil Croskey, MD Energy Advisors</td>
</tr>
<tr>
<td>11</td>
<td>Oct 12</td>
<td>Dinorah Olmos, Latino Education Advancement Fund</td>
</tr>
<tr>
<td>12</td>
<td>Oct 13</td>
<td>Mike Kelly, Baltimore Metropolitan Council</td>
</tr>
<tr>
<td>13</td>
<td>Oct 15</td>
<td>Harry Preston, BTU Leadership</td>
</tr>
<tr>
<td>14</td>
<td>Oct 15</td>
<td>Joe Jones, Center for Urban Families</td>
</tr>
<tr>
<td>15</td>
<td>Oct 20</td>
<td>Associated Student Congress of Baltimore City (ASCBC)</td>
</tr>
<tr>
<td>16</td>
<td>Oct 20</td>
<td>Parent Community Advisory Board (PCAB)</td>
</tr>
<tr>
<td>17</td>
<td>Oct 20</td>
<td>Mike Hinkey, Project Lead The Way/BMore STEM</td>
</tr>
<tr>
<td>18</td>
<td>Oct 20</td>
<td>CTE Town Hall</td>
</tr>
<tr>
<td>19</td>
<td>Oct 20</td>
<td>Baltimore City Community College</td>
</tr>
<tr>
<td>20</td>
<td>Oct 22</td>
<td>Donald Manekin, Seawall Development</td>
</tr>
<tr>
<td>21</td>
<td>Oct 22</td>
<td>Angie Winder, PCAB Member, Mervo Alumna</td>
</tr>
<tr>
<td>22</td>
<td>Oct 28</td>
<td>Larysa Salamacha, Baltimore Development Corporation</td>
</tr>
<tr>
<td>23</td>
<td>Nov 4</td>
<td>Mayor’s Office of Children and Family Success</td>
</tr>
<tr>
<td>24</td>
<td>Nov 5</td>
<td>Senator Katie Hester</td>
</tr>
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</table>
### Appendix A.3. Other Stakeholder Meetings (continued)

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Stakeholder</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Nov 5</td>
<td>BTU Town Hall – Building Trades</td>
</tr>
<tr>
<td>26</td>
<td>Nov 6</td>
<td>Dr. William (Brit) Kirwan</td>
</tr>
<tr>
<td>27</td>
<td>Nov 6</td>
<td>BTU Town Hall - Hospitality, culinary, and baking</td>
</tr>
<tr>
<td>28</td>
<td>Nov 10</td>
<td>BTU Town Hall – Health Careers</td>
</tr>
<tr>
<td>29</td>
<td>Nov 17</td>
<td>BTU Town Hall - Project Lead the Way and computer science</td>
</tr>
<tr>
<td>30</td>
<td>Nov 20</td>
<td>Local Advisory Council (City Schools' CTE advisory group)</td>
</tr>
<tr>
<td>31</td>
<td>Nov 23</td>
<td>BTU Town Hall – Cosmetology and Fashion Design</td>
</tr>
<tr>
<td>32</td>
<td>Nov 24</td>
<td>BTU Town Hall – Teacher Academy of Maryland, Early Childhood Education, Career Research and Development</td>
</tr>
<tr>
<td>33</td>
<td>Nov 30</td>
<td>City Schools Cabinet</td>
</tr>
<tr>
<td>34</td>
<td>Nov 30</td>
<td>BTU Town Hall - Business and Agriculture</td>
</tr>
<tr>
<td>35</td>
<td>Dec 1</td>
<td>Philanthropic community</td>
</tr>
<tr>
<td>36</td>
<td>Dec 1</td>
<td>BTU Town Hall – Print, Media, Graphic Design</td>
</tr>
<tr>
<td>37</td>
<td>Dec 2</td>
<td>Mayor’s Office of Employment Development</td>
</tr>
<tr>
<td>38</td>
<td>Dec 3</td>
<td>BTU Town Hall – All Clusters Make-Up Day</td>
</tr>
</tbody>
</table>
Appendix B

Detailed School-by-School Recommended Changes
Dr. Sonja Brookins Santelises  
Chief Executive Officer

**School Name:** Academy for College and Career Exploration  
**School Number:** 427  
**Address:** 1300 W 36th Street  
**Total Enrollment (SY19-20):** 541  

**Councilmanic District:** 7

---

**Current State for the School**

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.  
**Assuming a teaching load of 3 sections of 25 students

---

### # of Enrolled Students  
- **SY15-16 (9th Gr)**  
- **SY15-16 (9th Gr)**  
- **SY15-16 (9th Gr)**  
- **SY15-16 (9th Gr)**

<table>
<thead>
<tr>
<th>Enrolled = A student who enrolls in a course pathway</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentrator = A student who completes 2 or more courses in a pathway</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Completer = A student who completes the full 4-course sequence for the pathway</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Certified = A student who obtains an industry recognized credential</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

---

**Additional Career Readiness Resources and Supports**

- Support from district Work-Based Learning Team  
- Support for school-wide internship program under discussion  
- External partnership for CISCO networking training opportunities under discussion
CTE Pathways Removed by 2023-2024

- CISCO Networking

_The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February._
School Name: Achievement Academy at Harbor City High
School Number: 413
Address: 2201 Pinewood Avenue
Total Enrollment (SY19-20): 411
Councilmanic District: 3

Current State for the School

<table>
<thead>
<tr>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other*</td>
<td>78</td>
<td>0</td>
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</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
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</thead>
<tbody>
<tr>
<td>63</td>
<td>1</td>
<td>1</td>
<td>1</td>
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</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
- Short-term certifications under discussion
CTE Pathways Removed by 2023-2024

- Career Research and Development

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Augusta Fells Savage Institute of Visual Arts
School Number: 430
Address: 1500 Harlem Avenue
Total Enrollment (SY19-20): 419
Councilmanic District: 9

Current State for the School

<table>
<thead>
<tr>
<th>Category</th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>86</td>
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<td>(86)</td>
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<tr>
<td>Other*</td>
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<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
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<tr>
<td>69</td>
<td>22</td>
<td>13</td>
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</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
- Schoolwide Career Readiness Plan under discussion
CTE Pathways Removed by 2023-2024

• Interactive Media Production
• Construction Design and Management

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
**School Name:** Baltimore Polytechnic Institute  
**School Number:** 403  
**Address:** 1400 W Cold Spring Lane  
**Total Enrollment (SY19-20):** 1593

**Councilmanic District:** 6

---

### Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>At or Above Living Wage</td>
<td>210</td>
<td>75</td>
<td>(135)</td>
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<td>Other*</td>
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<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.

**Assuming a teaching load of 3 sections of 25 students

***JROTC became a CTE pathway in SY2021 but is not included as these positions are not affected by Scenario 5.

### # of Enrolled Students (SY15-16 (9th Gr))

<table>
<thead>
<tr>
<th></th>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled</td>
<td>81</td>
<td>55</td>
<td>42</td>
<td>1</td>
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</table>

Enrolled = A student who enrolls in a course pathway  
Concentrator = A student who completes 2 or more courses in a pathway  
Completer = A student who completes the full 4-course sequence for the pathway  
Certified = A student who obtains an industry recognized credential

---

### Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Baltimore Polytechnic

- JROTC
- Engineering

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
Dr. Sonja Brookins Santelises
Chief Executive Officer

**School Name:** Bluford Drew Jemison STEM Academy West

**School Number:** 364
**Address:** 1500 Harlem Avenue
**Total Enrollment (SY19-20):** 232

**Councilmanic District:** 9

---

**Current State for the School**

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
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<td>(15)</td>
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<td>Other*</td>
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</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.

**Assuming a teaching load of 3 sections of 25 students**

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
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<tbody>
<tr>
<td>25</td>
<td>4</td>
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<td>0</td>
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</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

---

**Additional Career Readiness Resources and Supports**

- Support from district Work-Based Learning team
- Schoolwide Career Readiness Plan under discussion
CTE Pathways Removed by 2023-2024

- PLTW Engineering

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
**School Name:** Baltimore Design School  
**School Number:** 382  
**Address:** 1500 Barclay Street  
**Total Enrollment (SY19-20):** 516  
**Councilmanic District:** 12

### Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>78</td>
<td>75</td>
<td>(3)</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
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</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.

**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 9th Gr))</th>
<th># of Concentrators (SY15-16 9th Gr))</th>
<th># of Completers (SY15-16 9th Gr))</th>
<th># Certified (SY15-16 9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>39</td>
<td>36</td>
<td>0</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway  
Concentrator = A student who completes 2 or more courses in a pathway  
Completer = A student who completes the full 4-course sequence for the pathway  
Certified = A student who obtains an industry recognized credential

### Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Baltimore Design School

- Interactive Media Production

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Benjamin Franklin High at Masonville Cove
School Number: 239
Address: 1201 Cambria Street
Total Enrollment (SY19-20): 532
Councilmanic District: 10

Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Proposed Scenario 5</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>156</td>
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<td>(156)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
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<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>81</td>
<td>26</td>
<td>13</td>
<td>0</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Future Students at Ben Franklin

- Carpentry (New Pathway)
- Electrical (New Pathway)
- Welding (New Pathway)

CTE Pathways Removed by 2024-2025

- Computer Science
- *Curriculum for Agriculture Science Education (sunset in SY20)*

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Joseph C. Briscoe Academy
School Number: 345
Address: 900 Druid Hill Avenue
Total Enrollment (SY19-20): 79
Councilmanic District: 11

Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.

**Assuming a teaching load of 3 sections of 25 students

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Joseph C. Briscoe

- Home Builders Institute (Co-located with Frederick Douglass High)

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Carver Vocational-Technical High  
School Number: 454  
Address: 2201 Prentzman Street  
Total Enrollment (SY19-20): 876  
Councilmanic District: 7

Current State for the School***

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>249</td>
<td>0</td>
<td>(249)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>284</td>
<td>1575</td>
<td>1291</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.  
**Assuming a teaching load of 3 sections of 25 students  
***JROTC became a CTE pathway in SY2021 but is not included in this table as these positions are not affected by Scenario 5.

# of Enrolled Students (SY15-16 (9th Gr)) | # of Concentrators (SY15-16 (9th Gr)) | # of Completers (SY15-16 (9th Gr)) | # Certified (SY15-16 (9th Gr)) |
---|---|---|---|
198 | 88 | 59 | 39 |

Enrolled = A student who enrolls in a course pathway  
Concentrator = A student who completes 2 or more courses in a pathway  
Completer = A student who completes the full 4-course sequence for the pathway  
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team  
- Pilot 9th Grade Construction Career and Pathway Exploration
CTE Pathways Available to Students by 2023-2024 at Carver

- Business (New Pathway)
- Carpentry
- Electrical
- HVAC (New Pathway)
- Masonry
- Plumbing (New Pathway)
- Welding (New Pathway)
- Cosmetology & Cosmetic Services
- Baking
- Culinary
- CISCO Cybersecurity Pathway (New Pathway)
- Computer Science (New Pathway)
- JROTC
- Advanced Manufacturing
- Engineering (New Pathway)
- Autobody Collision Repair Tech (New Pathway)
- Automotive Technician

CTE Pathways Removed by 2023-2024

- Accounting & Finance
- Business Administrative Services
- Construction Design and Management
- Early Childhood Education (transitioning to Teacher Academy)
- CISCO Networking Pathway
- Print ED

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
School Name: Digital Harbor High
School Number: 416
Address: 1100 Covington Street
Total Enrollment (SY19-20): 1196
Councilmanic District: 11

Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>542</td>
<td>525</td>
<td>(17)</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.

**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>366</td>
<td>106</td>
<td>71</td>
<td>24</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Digital Harbor

- Interactive Media Production
- CISCO Cybersecurity Pathway (New Pathway)
- CISCO Networking Pathway
- Computer Science

CTE Pathways Removed by 2023-2024

- Data Processing Tech./Technician

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
School Name: Frederick Douglass High  
School Number: 450  
Address: 2301 Gwynns Falls Parkway  
Total Enrollment (SY19-20): 850  
Councilmanic District: 7

Current State for the School***

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>120</td>
<td>225</td>
<td>105</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.  
**Assuming a teaching load of 3 sections of 25 students  
***JROTC became a CTE pathway in SY2021 but is not included in this table as these positions are not affected by Scenario 5

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>119</td>
<td>36</td>
<td>14</td>
<td>0</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway  
Concentrator = A student who completes 2 or more courses in a pathway  
Completer = A student who completes the full 4-course sequence for the pathway  
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning Coordinator  
- Junior Achievement 3DE Program  
- Schoolwide Career Readiness Plan under discussion
Opportunities with Locked Positions Available to Students by 2023-2024 at Douglass

- TBD (Career Readiness)
- HBI (Co-located w/ Joseph C. Briscoe)
- Junior Achievement 3DE Program
- Law and Leadership
- JROTC

CTE Pathways Removed by 2023-2024

- Interactive Media Production
- Fire Emergency Medical Training

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
School Name: Paul Laurence Dunbar High
School Number: 414
Address: 1400 Orleans Street
Total Enrollment (SY19-20): 881
Councilmanic District: 12

Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>31</td>
<td>0</td>
<td>(31)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>167</td>
<td>300</td>
<td>133</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>54</td>
<td>42</td>
<td>0</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports
- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Paul Laurence Dunbar

- Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant
- PLTW BioMedical Sciences
- Fire Emergency Medical Training

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Edmondson-Westside High
School Number: 400
Address: 501 N Athol Avenue
Total Enrollment (SY19-20): 881
Councilmanic District: 8

Current State for the School

<table>
<thead>
<tr>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>286</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>314</td>
<td>600</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>302</td>
<td>152</td>
<td>150</td>
<td>5</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports
- Support from district Work-Based Learning team
- Schoolwide Career Readiness Plan under discussion
CTE Pathways Available to Students by 2023-2024 at Edmondson-Westside

- Interactive Media Production
- Cosmetology & Cosmetic Services
- Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant
- Academy of Health Professions/Surgical Technician
- Teacher Academy of Maryland (New Pathway)

CTE Pathways Removed by 2023-2024

- Accounting & Finance
- Business Administrative Services
- Carpentry
- Baking
- Culinary
- Early Childhood Education
- CISCO Networking Pathway
- PLTW Engineering
- Automotive Technician

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
School Name: Excel Academy at Francis M. Wood High
School Number: 178
Address: 1001 W Saratoga Street
Total Enrollment (SY19-20): 574
Councilmanic District: 9

Current State for the School

<table>
<thead>
<tr>
<th>Below Living Wage</th>
<th>At or Above Living Wage</th>
<th>Other*</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>211</td>
<td>(211)</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.

**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning Coordinator
- Short-term certifications
CTE Pathways Removed by 2023-2024

- Career Research and Development

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
Current State for the School***

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>103</td>
<td>0</td>
<td>(103)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>160</td>
<td>525</td>
<td>365</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.

**Assuming a teaching load of 3 sections of 25 students

***JROTC became a CTE pathway in SY2021 but is not included in this table as these positions are not affected by Scenario 5

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>70</td>
<td>25</td>
<td>14</td>
<td>18</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Forest Park

- Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant (New Pathway)
- Autobody Collision Repair Technician
- Automotive Technician
- Computer Science
- Culinary
- JROTC

CTE Pathways Removed by 2023-2024

- Law and Leadership
- CISCO Networking Pathway

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Reginald F. Lewis High  
School Number: 419  
Address: 6401 Pioneer Drive  
Total Enrollment (SY19-20): 541  
Councilmanic District: 3

### Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>31</td>
<td>0</td>
<td>(31)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>62</td>
<td>75</td>
<td>13</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.  
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 9th Gr)</th>
<th># of Concentrators (SY15-16 9th Gr)</th>
<th># of Completers (SY15-16 9th Gr)</th>
<th># Certified (SY15-16 9th Gr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>135</td>
<td>35</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway  
Concentrator = A student who completes 2 or more courses in a pathway  
Completer = A student who completes the full 4-course sequence for the pathway  
Certified = A student who obtains an industry recognized credential

### Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team  
- Schoolwide Career Readiness Plan under discussion
CTE Pathways Available to Students by 2023-2024 at R.F. Lewis

- Business (New Pathway)

CTE Pathways Removed by 2023-2024

- Business Management
- Curriculum for Agriculture Science Education
- Law and Leadership

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Mergenthaler Vocational-Technical High
School Number: 410
Address: 3500 Hillen Road
Total Enrollment (SY19-20): 1,706
Councilmanic District: 14

Current State for the School***

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>444</td>
<td>75</td>
<td>(369)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>734</td>
<td>1725</td>
<td>991</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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**Assuming a teaching load of 3 sections of 25 students
***JROTC became a CTE pathway in SY2021 but is not included in this table as these positions are not affected by Scenario 5

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>409</td>
<td>257</td>
<td>193</td>
<td>54</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
- Pilot 9th Grade Construction Career and Pathway Exploration
**CTE Pathways Available to Students by 2023-2024 at Mergenthaler**

- Print ED
- Carpentry
- Electrical
- Masonry
- Plumbing
- Welding
- Cosmetology & Cosmetic Services
- Baking
- Culinary
- Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant
- Academy of Health Professions/ Pharmacy Technician- Maryland Board of Pharmacy Approved Option
- Academy of Health Professions/Dental Technician (New Pathway)
- Academy of Health Professions/Surgical Technician (New Pathway)
- Law and Leadership
- Teacher Academy of Maryland (New Pathway)
- CISCO Cybersecurity Pathway (New Pathway)
- Computer Science (PLTW)
- JROTC
- Engineering
- Autobody Collision Repair Tech
- Automotive Technician

**CTE Pathways Removed by 2023-2024**

- Accounting & Finance
- Business Management
- Construction Design and Management
- Early Childhood Education
- CISCO Networking Pathway

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: National Academy Foundation
School Number: 421
Address: 540 N Caroline Street
Total Enrollment (SY19-20): 796

Councilmanic District: 12

Current State for the School

<table>
<thead>
<tr>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>125</td>
<td>75</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>73</td>
<td>150</td>
</tr>
<tr>
<td>Other*</td>
<td>131</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>260</td>
<td>175</td>
<td>52</td>
<td>21</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
- Alignment with the NAF school-based model
CTE Pathways Available to Students by 2023-2024 at National Academy Foundation

- NAF Accounting and Finance (New Pathway)
- NAF Hospitality and Tourism (New Pathway)
- NAF IT (New Pathway)

CTE Pathways Removed by 2023-2024

- Accounting and Finance
- Career Research and Development
- CISCO Networking
- Culinary
- Lodging Management
- PLTW Engineering

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: New Era Academy  
School Number: 422  
Address: 2700 Seamon Avenue  
Total Enrollment (SY19-20): 288  

Councilmanic District: 10

Current State for the School***

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>146</td>
<td>75</td>
<td>(71)</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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**Assuming a teaching load of 3 sections of 25 students
***JROTC became a CTE pathway in SY2021 but is not included in this table as these positions are not affected by Scenario 5

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>17</td>
<td>11</td>
<td>14</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway  
Concentrator = A student who completes 2 or more courses in a pathway  
Completer = A student who completes the full 4-course sequence for the pathway  
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at New Era

- JROTC
- Local Seagoing/Maritime

CTE Pathways Removed by 2023-2024

- CISCO Networking

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
School Name: Patterson High
School Number: 405
Address: 100 Kane Street
Total Enrollment (SY19-20): 1,049
Councilmanic District: 1

Current State for the School

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>140</td>
<td>75</td>
<td>(65)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>277</td>
<td>750</td>
<td>473</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>150</td>
<td>150</td>
</tr>
</tbody>
</table>

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**Assuming a teaching load of 3 sections of 25 students
***JROTC became a CTE pathway in SY2021 but is not included in this table as these positions are not affected by Scenario 5

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>238</td>
<td>75</td>
<td>40</td>
<td>10</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Patterson

- Interactive Media Production (New Pathway)
- Business (New Pathway)
- Home Builders Institute (New Pathway)
- Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant
- Academy of Health Professions/ Pharmacy Technician- Maryland Board of Pharmacy Approved Option
- Fire Emergency Medical Training
- Teacher Academy of Maryland (New Pathway)
- Cosmetology & Cosmetic Services
- Computer Science
- JROTC
- PLTW Engineering

CTE Pathways Removed by 2023-2024

- Print ED
- Accounting & Finance
- Business Administrative Services
- Construction Design and Management
- Early Childhood Education
- Homeland Security and Emergency Preparedness - Criminal Justice/Law Enforcement

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
School Name: The Reach! Partnership School  
School Number: 341  
Address: 2555 Harford Road  
Total Enrollment (SY19-20): 545  
Councilmanic District: 14

Current State for the School***

<table>
<thead>
<tr>
<th></th>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>155</td>
<td>75</td>
<td>(80)</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>118</td>
<td>375</td>
<td>257</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.  
**Assuming a teaching load of 3 sections of 25 students  
***JROTC became a CTE pathway in SY2021 but is not included in this table as these positions are not affected by Scenario 5

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 9th Gr)</th>
<th># of Concentrators (SY15-16 9th Gr)</th>
<th># of Completers (SY15-16 9th Gr)</th>
<th># Certified (SY15-16 9th Gr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>208</td>
<td>35</td>
<td>19</td>
<td>0</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway  
Concentrator = A student who completes 2 or more courses in a pathway  
Completer = A student who completes the full 4-course sequence for the pathway  
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at The Reach! Partnership

- Carpentry
- HVAC
- Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant
- Academy of Health Professions/ Pharmacy Technician- Maryland Board of Pharmacy Approved Option
- Homeland Security and Emergency Preparedness - Criminal Justice/Law Enforcement
- JROTC

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
School Name: Vivien T. Thomas Medical Arts Academy
School Number: 429
Address: 100 N Calhoun Street
Total Enrollment (SY19-20): 371
Councilmanic District: 9

Current State for the School

<table>
<thead>
<tr>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>135</td>
<td>75</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>97</td>
<td>450</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

# of Enrolled Students (SY15-16 (9th Gr)) | # of Concentrators (SY15-16 (9th Gr)) | # of Completers (SY15-16 (9th Gr)) | # Certified (SY15-16 (9th Gr))
166 | 78 | 56 | 17

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning team
CTE Pathways Available to Students by 2023-2024 at Vivien T. Thomas

- Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant
- Academy of Health Professions/ Pharmacy Technician- Maryland Board of Pharmacy Approved Option
- Academy of Health Professions/Dental Technician
- PLTW BioMedical Sciences
- Sports Medicine
- Fire Emergency Medical Training

CTE Pathways Removed by 2023-2024

- Career Research and Development

*The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.*
School Name: Western High
School Number: 407
Address: 4600 Falls Road
Total Enrollment (SY19-20): 1086
Councilmanic District: 6

Current State for the School

<table>
<thead>
<tr>
<th>SY19-20 Enrollment</th>
<th>Available Seats** in Year 4 of Implementation (SY23-24)</th>
<th>Net Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Living Wage</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>At or Above Living Wage</td>
<td>332</td>
<td>300</td>
</tr>
<tr>
<td>Other*</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Career Research and Development and Home Builders Institute cannot be directly aligned to specific occupations with wage data.
**Assuming a teaching load of 3 sections of 25 students

<table>
<thead>
<tr>
<th># of Enrolled Students (SY15-16 (9th Gr))</th>
<th># of Concentrators (SY15-16 (9th Gr))</th>
<th># of Completers (SY15-16 (9th Gr))</th>
<th># Certified (SY15-16 (9th Gr))</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>53</td>
<td>32</td>
<td>1</td>
</tr>
</tbody>
</table>

Enrolled = A student who enrolls in a course pathway
Concentrator = A student who completes 2 or more courses in a pathway
Completer = A student who completes the full 4-course sequence for the pathway
Certified = A student who obtains an industry recognized credential

Additional Career Readiness Resources and Supports

- Support from district Work-Based Learning Coordinator
CTE Pathways Available to Students by 2023-2024 at Western

- PLTW BioMedical Sciences
- Teacher Academy of Maryland
- Computer Science
- Engineering

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
Appendix C

Pathway by Pathway Changes

The listing of pathways only represents locked positions funded by the College and Career Readiness Office. We will update with all currently existing pathways in February.
Overall locked position changes: SY20-21 and Scenario 5 Proposal
### Cluster: Arts, Media, and Communications

<table>
<thead>
<tr>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
</table>
| Interactive Media Production | • Augusta Fells Savage Institute of Visual Arts  
|                           | • Baltimore Design School  
|                           | • Digital Harbor High  
|                           | • Edmondson-Westside High  
|                           | • Frederick Douglass High                                                   | • Baltimore Design School  
|                           | • Digital Harbor High  
|                           | • Edmondson-Westside High  
|                           | • Patterson High                                                            | • Mergenthaler Vocational-Technical High |
| Print ED                 | • Carver Vocational-Technical High  
|                           | • Mergenthaler Vocational-Technical High  
|                           | • Patterson High                                                            |                                                 |
## Pathway Changes: Business Management and Finance

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
</table>
| Business Management      | Accounting & Finance              | • Carver Vocational-Technical High  
                           |                                                   | • Edmondson Westside High School  
                           |                                                   | • National Academy Foundation  
                           |                                                   | • Mergenthaler Vocational-Technical High  
                           |                                                   | • Patterson High  
                           |                                                   | --                                                         |
|                          | Business Administrative Services  | • Carver Vocational-Technical High  
                           |                                                   | • Edmondson-Westside High School  
                           |                                                   | • Patterson High  
                           |                                                   | --                                                         |
|                          | Business Management               | • Mergenthaler Vocational-Technical High  
                           |                                                   | • Reginald F. Lewis  
                           |                                                   | --                                                         |
|                          | Business (New)                    | --                                                                             | • Carver Vocational-Technical High  
                           |                                                   | • Patterson High  
                           |                                                   | • Reginald F. Lewis High  
                           |                                                   | --                                                         |
|                          | NAF Accounting & Finance          | --                                                                             | • National Academy Foundation  
                           |                                                   | --                                                         |
### Pathway Changes: Career Research and Development

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Research and Development</td>
<td>Career Research and Development</td>
<td>• Achievement Academy at Harbor City High&lt;br&gt;• Excel Academy at Francis M. Wood High&lt;br&gt;• National Academy Foundation&lt;br&gt;• Vivien T. Thomas</td>
<td>--</td>
</tr>
</tbody>
</table>
## Pathway Changes: Construction and Development

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction and Development</strong></td>
<td><strong>Carpentry</strong></td>
<td>• Carver Vocational-Technical High</td>
<td>• Benjamin Franklin High at Masonville Cove (after SY 23-24)</td>
</tr>
<tr>
<td></td>
<td>• Edmondson-Westside High</td>
<td></td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td>• The Reach! Partnership School</td>
<td></td>
<td>• The Reach! Partnership School</td>
</tr>
<tr>
<td><strong>Construction Design &amp; Management</strong></td>
<td><strong>Construction Design &amp; Management</strong></td>
<td>• Augusta Fells Savage Institute of Visual Arts</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>• Carver Vocational-Technical High</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Patterson High</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td>• Carver Vocational-Technical High</td>
<td></td>
<td>• Benjamin Franklin High at Masonville Cove (after SY 23-24)</td>
</tr>
<tr>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
<td></td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td>• Patterson High</td>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
</tr>
<tr>
<td><strong>Home Builders Institute</strong></td>
<td><strong>Home Builders Institute</strong></td>
<td>• Joseph C. Briscoe Academy</td>
<td>• Joseph C. Briscoe Academy (Co-located at Frederick Douglass)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Patterson High</td>
</tr>
<tr>
<td><strong>HVAC</strong></td>
<td>• The Reach! Partnership School</td>
<td></td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The Reach! Partnership School</td>
</tr>
<tr>
<td><strong>Masonry</strong></td>
<td>• Carver Vocational-Technical High</td>
<td></td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
</tr>
<tr>
<td><strong>Plumbing</strong></td>
<td>• Mergenthaler Vocational-Technical High</td>
<td></td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
</tr>
<tr>
<td><strong>Welding</strong></td>
<td>• Mergenthaler Vocational-Technical High</td>
<td></td>
<td>• Benjamin Franklin High at Masonville Cove (after SY 23-24)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Mergenthaler Vocational-Technical High</td>
</tr>
</tbody>
</table>
## Pathway Changes: Consumer Services, Hospitality, and Tourism

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Services, Hospitality, and Tourism</td>
<td><strong>Baking (to be reimagined)</strong></td>
<td>• Edmondson-Westside High&lt;br&gt;• Mergenthaler Vocational-Technical High</td>
<td>• Carver Vocational-Technical High&lt;br&gt;• Mergenthaler Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td><strong>Cosmetology &amp; Cosmetic Services</strong></td>
<td>• Carver Vocational-Technical High&lt;br&gt;• Edmondson-Westside High&lt;br&gt;• Mergenthaler Vocational-Technical High&lt;br&gt;• Patterson High</td>
<td>• Carver Vocational-Technical High&lt;br&gt;• Edmondson-Westside High&lt;br&gt;• Mergenthaler Vocational-Technical High&lt;br&gt;• Patterson High</td>
</tr>
<tr>
<td></td>
<td><strong>Culinary</strong></td>
<td>• Carver Vocational-Technical High&lt;br&gt;• Edmondson-Westside High&lt;br&gt;• Forest Park High&lt;br&gt;• Mergenthaler Vocational-Technical High&lt;br&gt;• National Academy Foundation</td>
<td>• Carver Vocational-Technical High&lt;br&gt;• Forest Park High&lt;br&gt;• Mergenthaler Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td><strong>Lodging Management</strong></td>
<td>• National Academy Foundation</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>NAF Hospitality and Tourism</strong></td>
<td>--</td>
<td>• National Academy Foundation</td>
</tr>
<tr>
<td>Cluster</td>
<td>Pathways</td>
<td>Current School</td>
<td>Scenario 5</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Environmental, Agricultural and Natural Resources</td>
<td>Curriculum for Agriculture Science Education</td>
<td>• Ben Franklin (already sunset)</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reginald F. Lewis High</td>
<td></td>
</tr>
</tbody>
</table>
# Pathway Changes: Health and Biosciences

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
</table>
| Health and Biosciences | Academy of Health Professions/ Certified Medical Specialty: Nursing Assistant | • Edmondson-Westside High  
• Mergenthaler Vocational-Technical High  
• Patterson High  
• Paul Laurence Dunbar High  
• The Reach! Partnership School  
• Vivien T. Thomas Medical Arts Academy | • Edmondson-Westside High  
• Forest Park High  
• Mergenthaler Vocational-Technical High  
• Patterson High  
• Paul Laurence Dunbar High  
• The Reach! Partnership School  
• Vivien T. Thomas Medical Arts Academy |
| | Academy of Health Professions/ Pharmacy Technician- Maryland Board of Pharmacy Approved Option | • Mergenthaler Vocational-Technical High  
• Patterson High  
• The Reach! Partnership School  
• Vivien T. Thomas Medical Arts Academy | • Mergenthaler Vocational-Technical High  
• Patterson High  
• The Reach! Partnership School  
• Vivien T. Thomas Medical Arts Academy |
| | Academy of Health Professions/Dental Technician | • Vivien T. Thomas Medical Arts Academy | • Mergenthaler Vocational-Technical High  
• Vivien T. Thomas Medical Arts Academy |
| | Academy of Health Professions/Surgical Technician | • Edmondson-Westside High | • Edmondson-Westside High  
• Mergenthaler Vocational-Technical High |
| | PLTW BioMedical Sciences | • Paul Laurence Dunbar High  
• Vivien T. Thomas Medical Arts Academy  
• Western High | • Paul Laurence Dunbar High  
• Vivien T. Thomas Medical Arts Academy  
• Western High |
| | Sports Medicine | • Vivien T. Thomas Medical Arts Academy | • Vivien T. Thomas Medical Arts Academy |
### Pathway Changes: Human Resource Services

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
</table>
| Human Resource Services | Early Childhood Education (transitioning to combine with Teacher Academy of Maryland) | • Carver Vocational-Technical High  
• Edmondson-Westside High  
• Mergenthaler Vocational-Technical High  
• Patterson High  | -- |
| | Fire Emergency Medical Training | • Frederick Douglass High  
• Patterson High  
• Paul Laurence Dunbar High  
• Vivien T. Thomas Medical Arts Academy | • Patterson High  
• Paul Laurence Dunbar High  
• Vivien T. Thomas Medical Arts Academy |
| | Homeland Security and Emergency Preparedness - Criminal Justice/Law Enforcement | • Patterson High  
• The Reach! Partnership School | • The Reach! Partnership School |
| | Law and Leadership | • Forest Park High  
• Frederick Douglass High  
• Mergenthaler Vocational-Technical High  
• Reginald F. Lewis High | • Frederick Douglass High  
• Mergenthaler Vocational-Technical High |
| | Teacher Academy of Maryland | • Western High | • Edmondson-Westside High  
• Mergenthaler Vocational-Technical High  
• Patterson High  
• Western High |
Pathway Changes: Information Technology

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
</table>
| Information Technology| CISCO Cybersecurity | --                      | • Carver Vocational-Technical High  
  • Digital Harbor High  
  • Mergenthaler Vocational-Technical High |
|                       | CISCO Networking    | • Academy for College and Career Exploration  
  • Carver Vocational-Technical High  
  • Digital Harbor High  
  • Edmondson-Westside High  
  • Forest Park High  
  • Mergenthaler Vocational-Technical High  
  • National Academy Foundation  
  • New Era Academy | • Digital Harbor High |
|                       | Computer Science    | • Benjamin Franklin High at Masonville Cove  
  • Carver Vocational-Technical High  
  • Digital Harbor High  
  • Forest Park High  
  • Mergenthaler Vocational-Technical High (PLTW)  
  • Patterson High  
  • Western High (PLTW) | • Carver Vocational-Technical High  
  • Digital Harbor High  
  • Forest Park High  
  • Mergenthaler Vocational-Technical High  
  • Patterson High  
  • Western High |
|                       | Data Processing Technician | • Digital Harbor High | -- |
|                       | NAF IT              | --                      | • National Academy Foundation |
### Pathway Changes: Manufacturing, Engineering and Technology

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing, Engineering and Technology</td>
<td>Advanced Manufacturing</td>
<td>• Carver Vocational-Technical High</td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td>Engineering</td>
<td>• Baltimore Polytechnic Institute (PLTW)</td>
<td>• Baltimore Polytechnic Institute (shared with Western)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bluford Drew Jemison STEM Academy West (PLTW)</td>
<td>• Carver Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Edmondson-Westside High (PLTW)</td>
<td>• Mergenthaler Vocational-Technical High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Mergenthaler Vocational-Technical High (PLTW)</td>
<td>• Patterson High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• National Academy Foundation (PLTW)</td>
<td>• Western High (shared with Poly)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Patterson High (PLTW)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Western High (PLTW)</td>
<td></td>
</tr>
</tbody>
</table>
Pathway Changes: Transportation Technologies

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Pathways</th>
<th>Current School</th>
<th>Scenario 5</th>
</tr>
</thead>
</table>
| Transportation Technologies | Autobody Collision Repair Tech | • Mergenthaler Vocational-Technical High | • Carver Vocational-Technical High  
• Forest Park High  
• Mergenthaler Vocational-Technical High |
|                        | Automotive Technician  | • Edmondson-Westside High  
• Forest Park High  
• Mergenthaler Vocational-Technical High | • Carver Vocational-Technical High  
• Forest Park High  
• Mergenthaler Vocational-Technical High |
|                        | Local Seagoing/Maritime | • New Era Academy                                  | • New Era Academy                                |
### Additional Supports: Non-CTE Pathway Career Readiness

<table>
<thead>
<tr>
<th>Positions</th>
<th>Scenario 5 Schools</th>
</tr>
</thead>
</table>
| • Pilot 9th Grade Construction Career and Pathway Exploration | • Carver Vocational-Technical High  
• Mergenthaler Vocational-Technical High |
| • Pilot 9th Grade Health Career and Pathway Exploration | • Edmondson-Westside High  
• Vivien T. Thomas Medical Arts Academy |
| • TBD  
• Junior Achievement 3DE Program | • Frederick Douglass High  
• Frederick Douglass High |
Appendix D:
Additional Data Used to Inform Decision Making
Environmental, Agriculture and Natural Resources
Data on the availability of occupations in this cluster that do not require a Bachelor’s Degree or more — or how much they pay — is limited, but we do know that the number of jobs that fit this criteria is very small. Most occupations related to the environment and conservation require higher education.
Environmental, Agricultural, and Natural Resources

- Enrollment in agriculture science has increased over time.
- The variation in enrollment is driven by the changes in enrollment at Ben Franklin.
- The number of occupations in this cluster that do not require a bachelor’s degree or higher is limited.
- The growth occupations in this area require an AA, and only one pays a living wage.
Environmental, Agricultural, and Natural Resources: Agricultural Science Education

Agriculture Science Education

- Aside from Ben Franklin, whose enrollment almost doubled from 18-19 to 19-20, enrollment in this pathway has been on the decline for the last three years.
- Independence Sch began offering this pathway in 19-20.

Environmental Studies / Natural Resources

- Program sunsetted in SY17-18
Environmental, Agriculture and Natural Resources

- Across the three schools that offered agriculture science for the 15-16 cohort, very few students completed the pathway.
Environmental, Agriculture, and Natural Resources: Agriculture Science Education

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Business Management and Finance
Business Management and Finance

While Business and Financial Operations occupations are expected, on average, to grow, most require a Bachelor’s Degree or more for entry-level jobs. The pathways in this cluster — Accounting and Finance, Business Management, Marketing and Business Administrative Services — are not explicitly tied to specific occupations, and students attain a Microsoft Office Specialist certification. Most office and administrative support jobs only require a high school credential but the wages are low.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>Baltimore City</th>
<th>Baltimore County</th>
<th>Maryland</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Claims Adjusters, Examiners, and Investigators</td>
<td>884</td>
<td>3,029</td>
<td>6,830</td>
<td>-7.7%</td>
<td>$47</td>
</tr>
<tr>
<td></td>
<td>Insurance Appraisers, Auto Damage</td>
<td></td>
<td>109</td>
<td>394</td>
<td>4.8%</td>
<td>$41</td>
</tr>
<tr>
<td></td>
<td>Tax Preparers</td>
<td>110</td>
<td>1,124</td>
<td></td>
<td>13.4%</td>
<td>$40</td>
</tr>
<tr>
<td></td>
<td>Transportation, Storage, and Distribution Managers</td>
<td>309</td>
<td>186</td>
<td>1,504</td>
<td>9.6%</td>
<td>$79</td>
</tr>
<tr>
<td></td>
<td>Office and Administrative Support Occupations</td>
<td>51,681</td>
<td>60,274</td>
<td>440,032</td>
<td>-2.6%</td>
<td>$26</td>
</tr>
</tbody>
</table>
Business Management and Finance

- Enrollment in all business pathways has been declining.
- Occupations in business management & finance are expected to grow, on average, but most require a Bachelor’s Degree or higher for entry-level jobs.
- There are a number of growth occupations in business management & finance (particularly in marketing) which only require an HSD / HSE, but experience will be beneficial.
Business Management and Finance: Accounting & Finance and Business Administration

Accounting

- With the exception of the National Academy Foundation, there has been a decline in overall student enrollment.
- In the last six years, one school eliminated the program.

Business Administration

- After an initial decline in the 16-17 school year, Business Administration enrollment has remained fairly stable.
- Annual enrollment in this entire pathway ranges between 20-45 students.
Business Management and Finance: Business Management

- Only RF Lewis and Mergenthaler Voc-Tech have offered this pathway in the last two school years, and both have seen a decline in enrollment from 16-17 and 17-18 levels.
- Very few students have completed the pathway.
Bus. Management & Finance (1/2)

- Occupations in business management & finance are expected to grow, on average, but most require a Bachelor’s Degree or higher for entry-level jobs.

- There are a number of growth occupations in business management & finance (particularly in marketing) which only require an HSD / HSE, but experience will be beneficial.
Bus. Management & Finance (2/2)

- The numbers of students enrolled in the pathways are relatively low, some of which is a reflection of teachers available to teach.

- Students attain a MS office certification; this is not tied to a specific occupation.

- Very few students obtained the certification (exclusively at Carver).
Business Management and Finance: Accounting & Finance
Business Management and Finance: Business Administration
Business Management and Finance: Business Management

[Map showing various locations with different program statuses]

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Career Research & Development: Career Research & Development

- Enrollment has steadily declined over the past 6 years.
- Program is scheduled to end.
Construction & Development
Construction and Development (1)

Construction-related occupations are expected to grow in the city, county and state, and most do not require more than a high school diploma. Many of these occupations require apprenticeships and on-the-job training for entry and wage growth.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Across Construction</td>
<td>Construction and Extraction Occupations</td>
<td>10,838</td>
<td>7.4%</td>
<td>23,210</td>
<td>9.4%</td>
<td>156,409</td>
<td>10.4%</td>
<td>No formal cred or HSD/HSE</td>
<td>$32</td>
</tr>
<tr>
<td></td>
<td>Construction Trades Workers</td>
<td>7,621</td>
<td>7.6%</td>
<td>18,133</td>
<td>8.9%</td>
<td>120,834</td>
<td>10.7%</td>
<td>No formal cred or HSD/HSE</td>
<td>$32</td>
</tr>
<tr>
<td></td>
<td>Helpers, Construction Trades</td>
<td>760</td>
<td>12.9%</td>
<td>7,863</td>
<td>11.5%</td>
<td></td>
<td></td>
<td>$24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Construction/Related Workers</td>
<td>1,281</td>
<td>5.3%</td>
<td>1,225</td>
<td>14.2%</td>
<td>8,311</td>
<td>5.9%</td>
<td>$32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Supervisors</td>
<td>1,465</td>
<td>7.4%</td>
<td>2,909</td>
<td>9.5%</td>
<td>18,259</td>
<td>11.0%</td>
<td>$51</td>
<td></td>
</tr>
<tr>
<td>Carpentry</td>
<td>Helpers—Carpenters</td>
<td>342</td>
<td>12.1%</td>
<td>2,075</td>
<td>12.0%</td>
<td></td>
<td></td>
<td>No formal cred or HSD/HSE</td>
<td>$19</td>
</tr>
<tr>
<td></td>
<td>Carpenters</td>
<td>1,028</td>
<td>0.0%</td>
<td>3,635</td>
<td>8.9%</td>
<td>21,456</td>
<td>10.3%</td>
<td>HSD/HSE</td>
<td>$36</td>
</tr>
<tr>
<td>Const Design &amp; Mgmt</td>
<td>Architectural and Civil Drafters</td>
<td>247</td>
<td>6.9%</td>
<td>1,220</td>
<td>8.4%</td>
<td></td>
<td></td>
<td>Associate's</td>
<td>$48</td>
</tr>
<tr>
<td></td>
<td>Electrical and Electronics Drafters</td>
<td>495</td>
<td>6.9%</td>
<td>1,211</td>
<td>6.3%</td>
<td></td>
<td></td>
<td>Associate's</td>
<td>$51</td>
</tr>
<tr>
<td></td>
<td>Mechanical Drafters</td>
<td>362</td>
<td>8.1%</td>
<td>319</td>
<td>9.2%</td>
<td></td>
<td></td>
<td>Associate's</td>
<td>$50</td>
</tr>
<tr>
<td></td>
<td>Drafters, All Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical</td>
<td>Helpers—Electicians</td>
<td>1,248</td>
<td>9.3%</td>
<td>2,141</td>
<td>9.7%</td>
<td>14,604</td>
<td>10.2%</td>
<td>HSD/HSE</td>
<td>$37</td>
</tr>
<tr>
<td></td>
<td>Electricians</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Construction and Development (2)

Construction-related occupations are expected to grow in the city, county and state, and most do not require more than a high school diploma. Many of these occupations require apprenticeships and on-the-job training for entry and wage growth.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>Baltimore City</th>
<th></th>
<th></th>
<th></th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC</td>
<td>Heating, Air Conditioning, and Refrigeration</td>
<td>807</td>
<td>10.1%</td>
<td>966</td>
<td>15.3%</td>
<td>6,697</td>
<td>PostSec Cred $41</td>
</tr>
<tr>
<td></td>
<td>Mechanics and Installers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masonry</td>
<td>Helpers–Brickmasons, Blockmasons, Stonemasons,</td>
<td>959</td>
<td>11.3%</td>
<td></td>
<td></td>
<td>No formal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and Tile and Marble Setters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brickmasons and Blockmasons</td>
<td>1,002</td>
<td>10.4%</td>
<td>3,261</td>
<td>9.6%</td>
<td>HSD/HSE</td>
<td>$53</td>
</tr>
<tr>
<td></td>
<td>Stoneasons</td>
<td>337</td>
<td>10.1%</td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td></td>
</tr>
<tr>
<td>Plumbing</td>
<td>Helpers–Pipelayers, Plumbers, Pipefitters, and</td>
<td>1,324</td>
<td>11.9%</td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$20</td>
</tr>
<tr>
<td></td>
<td>Steamfitters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plumbers, Pipefitters, and Steamfitters</td>
<td>503</td>
<td>14.8%</td>
<td>2,185</td>
<td>16.8%</td>
<td>HSD/HSE</td>
<td>$44</td>
</tr>
<tr>
<td>Welding</td>
<td>Welders, Cutters, Solderers, and Brazers</td>
<td>230</td>
<td>1.8%</td>
<td>284</td>
<td>10.1%</td>
<td>HSD/HSE</td>
<td>$38</td>
</tr>
<tr>
<td></td>
<td>Welding, Soldering, and Brazing Machine Setters</td>
<td>274</td>
<td>3.4%</td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$26</td>
</tr>
<tr>
<td></td>
<td>Operators, and Tenders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Construction and Development

- With the exception of carpentry, the construction and development pathways have seen a stabilization or decline in student enrollment since SY17-18.
- Construction-related occupations are expected to grow in the city, county and state, and most do not require more than a high school diploma.
- Many of these occupations require apprenticeships and on-the-job training for entry and wage growth.
Construction Design & Management
- Enrollment at Green St Academy spiked in 17-18 but has returned to similar numbers as other high schools.
- Otherwise enrollment has remained consistent across the last six years, with Carver Voc-Tech and Edmondson-Westside enrollment lower than the rest of the district.

Carpentry
- Carpentry enrollment at The Reach! has nearly doubled in the last three years though it has the lowest certification rate among the programs.
- Enrollment at the other high schools has remained fairly consistent over the last six years.
Construction and Development: Pathways

**Electrical**
- Both The Reach! and Carver Voc-Tech have sunsetted this pathway.
- Mergenthaler Voc-Tech has seen a steady rise in enrollment across the last six years, but remains at just over 40 students in 19-20.

**Masonry**
- Despite slight increases in 18-19, masonry has continuously declined across the last six years.
- Only two schools offer this pathway, and enrollment district-wide is below 40 students in 19-20.
Construction and Development: Pathways

Welding

- The welding pathway is currently only offered at Mergenthaler Voc-Tech, and enrollment has stayed consistent across the last three years, with 50 students at most.
Construction and Development (1/3)

- With the exception of carpentry and construction management, cohort enrollment in all construction and development programs is low. They range from between 8 and 17 students.

- Example: The total combined enrollment in masonry is 38 students this year even though the program is in two schools.
Construction & Development (2/3)

- As a result of low enrollment, teachers in these pathways have a smaller load than their counterparts in other pathways (e.g., nursing).

- Across this cluster, only three schools have at least 50% of the cohort completing a pathway:
  - Mergenthaler - Carpentry
  - Balto Design School - Construction Management
  - Green Street Academy - Construction Management
Recognizing there may be data collection issues regarding student certification, based on available information all but two schools had more than a 25% certification rate.

The two schools are:
- Carver - Carpentry
- Patterson - Construction Management
Construction and Development: **Carpentry**

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Construction and Development: Construction Design & Management
Construction and Development: HVAC
Construction and Development: Electrical
Construction and Development: Masonry
Career Research & Development

- N/A. This program will be sunset.
Career Research & Development

Map showing different locations with different symbols indicating filled positions, vacant positions, and schools with no program.
Consumer Services, Hospitality and Tourism
Consumer Services, Hospitality and Tourism (1)

Projections for cosmetology occupations are not available for the city but these low-wage jobs are expected to grow in the county and state. Occupations in hospitality provide better earning potential but growth projections for those jobs are moderate.
Consumer Services, Hospitality and Tourism (2)

Food preparation and serving related occupations are projected to grow at a fast pace. Most of these jobs start below the living wage and do not have much room for growth. For example, the median wage for food preparation and service workers in the city is $22,371.

![Employment Projections, 2016-2026]

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food &amp; Bev (ProStart and Baking)</td>
<td>Food Preparation and Serving Related Occupations</td>
<td>24,123</td>
<td>8.4%</td>
<td>31,954</td>
<td>5.5%</td>
<td>235,107</td>
<td>9.0%</td>
<td></td>
<td>$20</td>
</tr>
<tr>
<td></td>
<td>Chefs and Head Cooks</td>
<td>203</td>
<td>9.1%</td>
<td>682</td>
<td>7.1%</td>
<td>3,000</td>
<td>8.3%</td>
<td>HSD/HSE</td>
<td>$38</td>
</tr>
<tr>
<td></td>
<td>Supervisors of Food Prep and Serving Workers</td>
<td>2,493</td>
<td>10.1%</td>
<td>2,557</td>
<td>6.6%</td>
<td>18,265</td>
<td>8.9%</td>
<td>HSD/HSE</td>
<td>$25</td>
</tr>
<tr>
<td></td>
<td>Cooks and Food Preparation Workers</td>
<td>5,706</td>
<td>5.5%</td>
<td>9,756</td>
<td>5.0%</td>
<td>59,051</td>
<td>8.9%</td>
<td>No formal cred</td>
<td>$22</td>
</tr>
<tr>
<td></td>
<td>Food and Beverage Serving Workers</td>
<td>13,277</td>
<td>9.9%</td>
<td>14,894</td>
<td>5.9%</td>
<td>122,785</td>
<td>9.0%</td>
<td>No formal cred</td>
<td>$20</td>
</tr>
<tr>
<td></td>
<td>Dining Room and Cafeteria Attendants and Bartender Helpers</td>
<td>1,100</td>
<td>7.8%</td>
<td>1,566</td>
<td>7.3%</td>
<td>10,653</td>
<td>8.9%</td>
<td>No formal cred</td>
<td>$21</td>
</tr>
<tr>
<td></td>
<td>Dishwashers</td>
<td>609</td>
<td>4.1%</td>
<td>1,491</td>
<td>1.0%</td>
<td>11,529</td>
<td>9.1%</td>
<td>No formal cred</td>
<td>$20</td>
</tr>
<tr>
<td></td>
<td>Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop</td>
<td>462</td>
<td>7.2%</td>
<td>666</td>
<td>5.9%</td>
<td>8,443</td>
<td>9.1%</td>
<td>No formal cred</td>
<td>$23</td>
</tr>
<tr>
<td></td>
<td>Food Preparation and Serving Related Workers, All Other</td>
<td>273</td>
<td>1.5%</td>
<td>342</td>
<td>4.0%</td>
<td>1,381</td>
<td>8.0%</td>
<td>No formal cred</td>
<td>$23</td>
</tr>
<tr>
<td></td>
<td>Food Processing Workers</td>
<td>1,179</td>
<td>2.7%</td>
<td>1,296</td>
<td>7.7%</td>
<td>11,085</td>
<td>3.7%</td>
<td>No formal cred</td>
<td>$21</td>
</tr>
<tr>
<td></td>
<td>Food Batchmakers</td>
<td>241</td>
<td>-4.0%</td>
<td>332</td>
<td>5.7%</td>
<td>1,686</td>
<td>1.8%</td>
<td>HSD/HSE</td>
<td>$20</td>
</tr>
<tr>
<td></td>
<td>Bakers</td>
<td>778</td>
<td>6.1%</td>
<td>828</td>
<td>7.7%</td>
<td>3,759</td>
<td>5.6%</td>
<td>No formal cred</td>
<td>$22</td>
</tr>
<tr>
<td></td>
<td>Food Service Managers</td>
<td>180</td>
<td>9.8%</td>
<td>591</td>
<td>6.5%</td>
<td>4,101</td>
<td>8.5%</td>
<td>HSD/HSE</td>
<td>$49</td>
</tr>
</tbody>
</table>
consumer services, hospitality and tourism

• With the exception of Food and Beverage management, enrollment in the various pathways have been fairly steady.

• Food & Beverage Management and Cosmetic Services are the two pathways with highest student enrollment; but this is likely a reflection of the number of programs available in this area.

• Food preparation and serving related occupations are projected to grow at a fast pace.

• Projections for cosmetology occupations are not available for the city but these low-wage jobs are expected to grow in the county and state.
Consumer Services, Hospitality, and Tourism: Pathways

Baking

- Mergenthaler and Edmondson-Westside have had fairly consistent enrollment across the last six years, with slight declines in 19-20.
- Carver Voc-Tech and Claremont both appear to have previously offered this pathway for one year.

Food & Beverage Management

- Most schools have had fairly consistent enrollment patterns over the last six years; Forest Park and Natl Acad Fndn experienced growth from 16-17 but have recently seen declines.
- New Hope has had under 25 students for two years in a row.
Lodging Management

- Lodging Management saw a sharp decline from 18-19 to 19-20 and was below 40 students in 19-20.
- This pathway is offered at only one school.
Cosmetology and Cosmetic Services

- Enrollment in cosmetic services has remained consistent across the last six years for the four schools that offer this pathway.
- Patterson has a significantly lower enrollment than the rest of the district.

*Cosmetology and Cosmetic Services were combined for this analysis due to significant pathway course overlap.*
Consumer Services, Hospitality and Tourism (1/2)

- Careers in cosmetology do not pay a living wage.
- Only Mergenthaler had at least 50% of the 15-16 cohort complete the cosmetic services pathway; no students obtained a certification.
- In lodging management, only careers as a lodging manager or concierge would allow students to earn a living wage. There is an expected growth of 5.5% (134 jobs) for concierges.
Food preparation and serving related occupations are projected to grow at a fast pace.

Most of these jobs start below the living wage and do not have much room for growth. For example, the median wage for food preparation and service workers in the city is $22,371.

A high percentage of students in food and beverage management either complete their program of study or are certified.
Consumer Services, Hospitality and Tourism: Baking
Consumer Services, Hospitality and Tourism: Food & Beverage Management
Consumer Services, Hospitality and Tourism: Lodging Management

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Consumer Services, Hospitality and Tourism: Cosmetic Services

[Map showing the distribution of Cosmetic Services in Baltimore with indicators for programs with filled and vacant positions, and schools with no programs.]
Health & Biosciences
Jobs for dental assistants and pharmacy technicians are projected to decline in the city, but grow at the county and state level. Dental and nursing assistants can advance their earning potential significantly by acquiring post-secondary credentials or a two-year degree.
The PLTW Biomedical Sciences pathway is not tied to specific occupations. In general, healthcare occupations are projected to grow across the state and the county, and many offer high earning potential with a two-year degree.
Health and Biosciences (3)

Healthcare support occupations are also projected to grow, on average. Some of these occupations offer living wages for entry-level jobs that can be acquired through short-term postsecondary training (like phlebotomists).

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>2026 (#)</th>
<th>Growth</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Healthcare Support Occupations</td>
<td>9,325</td>
<td>2.0%</td>
<td>17,459</td>
<td>19.3%</td>
<td>90,502</td>
<td>18.1%</td>
<td>HSD/HSE</td>
<td>$27</td>
</tr>
<tr>
<td></td>
<td>Physical Therapist Aides</td>
<td>342</td>
<td>24.4%</td>
<td>1,967</td>
<td>27.1%</td>
<td>HSD/HSE</td>
<td>$24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical Equipment Preparers</td>
<td>420</td>
<td>0.5%</td>
<td>158</td>
<td>9.0%</td>
<td>1,589</td>
<td>15.5%</td>
<td>HSD/HSE</td>
<td>$35</td>
</tr>
<tr>
<td></td>
<td>Veterinary Assistants and Laboratory Animal Caretaker</td>
<td>75</td>
<td>2.7%</td>
<td>272</td>
<td>19.3%</td>
<td>1,886</td>
<td>8.0%</td>
<td>HSD/HSE</td>
<td>$27</td>
</tr>
<tr>
<td></td>
<td>Healthcare Support Workers, All Other</td>
<td>880</td>
<td>1.3%</td>
<td>622</td>
<td>11.9%</td>
<td>4,199</td>
<td>11.1%</td>
<td>HSD/HSE</td>
<td>$24</td>
</tr>
<tr>
<td></td>
<td>Massage Therapists</td>
<td>278</td>
<td>8.6%</td>
<td>2,916</td>
<td>5.2%</td>
<td>PostSec Cred</td>
<td>$21</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical Assistants</td>
<td>1,589</td>
<td>-0.4%</td>
<td>2,071</td>
<td>20.0%</td>
<td>14,065</td>
<td>26.5%</td>
<td>PostSec Cred</td>
<td>$30</td>
</tr>
<tr>
<td></td>
<td>Medical Transcriptionists</td>
<td>756</td>
<td>14.9%</td>
<td>756</td>
<td>14.9%</td>
<td>PostSec Cred</td>
<td>$35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phlebotomists</td>
<td>637</td>
<td>3.1%</td>
<td>514</td>
<td>21.8%</td>
<td>2,544</td>
<td>24.6%</td>
<td>PostSec Cred</td>
<td>$35</td>
</tr>
<tr>
<td></td>
<td>Physical Therapist Assistants</td>
<td>334</td>
<td>7.4%</td>
<td>300</td>
<td>24.5%</td>
<td>2,031</td>
<td>26.8%</td>
<td>Associate’s</td>
<td>$33</td>
</tr>
<tr>
<td></td>
<td>Occupational Therapy Assistants</td>
<td>105</td>
<td>20.7%</td>
<td>829</td>
<td>25.6%</td>
<td>Associate’s</td>
<td>$28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Health and Biosciences

- Enrollment in the nursing assistant pathway has seen a large decline in the last two years, owing mostly to a decline at VT Thomas and the sunsetting of this pathway at Green Street Academy.
- Healthcare occupations are expected to grow across the state and country; however, they all require some form of postsecondary education.
- To earn a living wage in a dental occupation students need additional postsecondary training.
- LPN/LVN are the only nursing occupations with a living wage, but require a postsecondary credential.
- Labor data for surgical techs is strong, but also requires postsecondary study.
Health and Bio-Sciences: Dental Technician and Nursing Assistant

**Dental Technician**
- Enrollment at this program has been on the decline since 16-17, with fewer than 30 students in the pathway in 19-20.
- This pathway is only offered at VT Thomas Medical Arts.

**Nursing Assistant**
- Enrollment at most schools has stayed fairly consistent across the last 4 years.
- VT Thomas Medical Arts saw a sharp drop in enrollment in 18-19, but continues sit towards the top in enrollment.
Health and Bio-Sciences: Pharmacy Technician & Surgical Technician

Pharmacy Technician
- VT Thomas Medical Arts has seen decline over the last 3 years.
- Enrollment across the rest of the district has remained fairly consistent across the last 4 years.

Surgical Technician
- Edmondson-Westside has seen a decline in enrollment over the last three years, with fewer than 45 students enrolled in 19-20.
- VT Thomas Medical Arts sunset this pathway in 15-16.
Health and Bio-Sciences: BioMedical Sciences

PLTW BioMedical Sciences

- Enrollment across schools has been consistent, aside from Western, which has seen enrollment jump by around 100 students over the last three years.
- BD Jemison STEM and Edmondson-Westside both discontinued this pathway in 16-17.
• A little more than \( \frac{1}{3} \) of students who enroll in dental tech program concentrate or complete their program of study.

• To earn a living wage, students in the dental tech program will need to pursue some form of postsecondary credentialing.

• While there is generally high cohort enrollment for nursing assistants, fewer than 50% complete the program of study and only students from Mer-Vo from the SY15-16 cohort earned nursing certifications.

• While nursing assistant starting wages come close to a living wage, they are more likely to earn a living wage if they get certification as an LPN.
Pharmacy aides and pharmacy technician positions are expected to decline. These occupations do not pay a living wage.

Fewer than 50% of students in the pharmacy tech pathway completed.

Surgical tech occupation
Health & Biosciences (3/3)

• The PLTW Biomedical Sciences pathway is not tied to specific occupations.
• There is a high percentage of completers in this pathway.
Health and Biosciences: Dental Technician
Health and Biosciences: Nursing Assistant

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Health and Biosciences: Pharmacy Technician
Health and Biosciences: Surgical Technician
Health and Biosciences: PLTW BioMedical Sciences
Human Resource Services
Number of jobs related to law enforcement are projected to decline. Demand for mapping and GIS skills are expected to grow but most of those occupations would require a Bachelor’s Degree for an entry-level job. The number of survey and mapping technician jobs that do not require post-secondary credentials are expected to grow but the numbers are small.
Legal support workers, as well as emergency workers, can access entry-level jobs that pay above living wage with a high school diploma or short-term post-secondary training; these occupations are also projected to grow. Nearly all teaching jobs that pay above a living wage require a Bachelor’s degree.

### Employment Projections, 2016-2026

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>Baltimore City</th>
<th>Baltimore County</th>
<th>Maryland</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Child Edu</td>
<td>Childcare Workers</td>
<td>2,094</td>
<td>1,798</td>
<td>16,583</td>
<td>HSD/HSE</td>
<td>$20</td>
</tr>
<tr>
<td>Emerg Med and Fire Emerg Med</td>
<td>Police, Fire, and Ambulance Dispatchers</td>
<td>271</td>
<td>196</td>
<td>1,391</td>
<td>HSD/HSE</td>
<td>$39</td>
</tr>
<tr>
<td></td>
<td>Ambulance Drivers and Attendants, Except EMTs</td>
<td></td>
<td>276</td>
<td>1,391</td>
<td>HSD/HSE</td>
<td>$23</td>
</tr>
<tr>
<td></td>
<td>Firefighters</td>
<td>643</td>
<td>5,471</td>
<td>2,032</td>
<td>PostSec Cred</td>
<td>$42</td>
</tr>
<tr>
<td></td>
<td>Emergency Medical Technicians and Paramedics</td>
<td>826</td>
<td>5,471</td>
<td>2,032</td>
<td>PostSec Cred</td>
<td>$38</td>
</tr>
<tr>
<td>Local Criminal Justice</td>
<td>Legal Secretaries</td>
<td>602</td>
<td>4,117</td>
<td>1,970</td>
<td>HSD/HSE</td>
<td>$37</td>
</tr>
<tr>
<td></td>
<td>Legal Support Workers</td>
<td>2,688</td>
<td>12,130</td>
<td>4,117</td>
<td>$41</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Court Reporters</td>
<td>2,373</td>
<td>2,373</td>
<td></td>
<td>$29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paralegals and Legal Assistants</td>
<td>2,261</td>
<td>6,455</td>
<td></td>
<td>Associate’s</td>
<td>$41</td>
</tr>
<tr>
<td></td>
<td>Legal Support Workers, All Other</td>
<td>393</td>
<td>1,923</td>
<td></td>
<td>Associate’s</td>
<td>$47</td>
</tr>
<tr>
<td>Teaching</td>
<td>Preschool, Primary, Secondary, and Special Ed Teachers</td>
<td>12,681</td>
<td>53,905</td>
<td></td>
<td>$44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-Enrichment Education Teachers</td>
<td>629</td>
<td>4,369</td>
<td></td>
<td>HSD/HSE</td>
<td>$26</td>
</tr>
<tr>
<td></td>
<td>Preschool Teachers, Except Special Education</td>
<td>1,188</td>
<td>9,872</td>
<td></td>
<td>Associate’s</td>
<td>$26</td>
</tr>
</tbody>
</table>
Human Resource Services

- Cluster enrollment has been relatively stable across all pathways for schools that still have the program.
  - The drop between 18-19 / 19-20 in law and leadership occurred because of the closure of the program at F Douglas.
- With the exception of early childhood education, most of the occupations in this cluster allow students to earn a living wage or be on the path towards a living wage.
Human Resource Services: Pathways

Early Child Education

- Enrollment has been fairly consistent across the last six years, with each school experiencing a slight decline in 19-20.

Fire Emergency Medical Technician

- Enrollment across the last five years has been fairly consistent and low, with F Douglas and PL Dunbar experiencing a slight decline and Patterson and VT Thomas Medical Arts seeing a small increase in 19-20.
Human Resource Services: Pathways

Homeland Security: Criminal Justice
- Enrollment at Patterson and The Reach! declined in 19-20, but has remained low (fewer than 35 students per school) across the last five years.
- Renaissance Academy sunset their pathway in 17-18.

Homeland Security: Homeland Security Sciences
- Only Digital Harbor has seen a steady increase in enrollment, with Patterson and The Reach! having fewer than 30 students enrolled for the last four years.
Human Resource Services: Pathways

### Law & Leadership
- F Douglas ended this pathway in 18-19; Renaissance Academy only offered it in 15-16.
- RF Lewis has seen enrollment numbers shrink substantially across the last four years.
- Enrollment at the other three schools has been fairly consistent across the last three years.

### Teacher Academy
- Enrollment at Western has increased slightly in the last four years, but remains under 45 students.
- Mergenthaler Voc-Tech sunsetted this pathway in 15-16.
Overall, the number of jobs related to law enforcement are projected to decline.

However, police officers and criminal investigators are positions that are expected to grow and pay a living wage in Baltimore City.

Legal support workers, can access entry-level jobs that pay above living wage with a high school diploma or short-term post-secondary training; these occupations are also projected to grow.

Fewer than ½ the students who enroll in either of these pathways complete their program of study.
Human Resource Services (2/3)

- Emergency workers can access entry-level jobs that pay above living wage with a high school diploma or short-term post-secondary training; these occupations are also projected to grow.

- There has been a steady decline in Fire EMT enrollment at Dunbar, while VT Thomas and Patterson has seen growth in pathway enrollment.

- With the exception of students at Mer-Vo, less than 50% of students enrolled in the law & leadership pathway complete their program of study.
The demand for childcare workers in Baltimore City is expected to grow by 11.1% (>2,000 jobs); however, these positions do not pay a living wage.

Nearly all teaching jobs that pay above a living wage require a Bachelor’s degree; however, there is a clear path towards a living wage for this occupation.
Human Resources Services: Early Childhood Education

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Human Resources Services: Fire Emergency Medical Training

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Human Resources Services: Homeland Security - Criminal Justice / Law Enforcement

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Human Resources Services: Law and Leadership

[Map showing locations marked with "Law & Leadership" and symbols indicating filled, vacant, and no programs.]

- Orange circles: Pgm with filled position
- Purple circles: Pgm with vacant position
- Black circles: School with no pgm

Map legend:
- CCI: Community Conditions Index
  - 6-9 (Low Investment)
  - 10-14
  - 15-16
  - 20-24 (High Investment)
Human Resources Services: Teacher Academy
Information Technology
Information Technology

All jobs related to computer science require some college, and most require a Bachelor’s. Computer-related occupations are expected to grow across the city, county and state, and entry-level jobs for those occupations pay well above the living wage.

**Employment Projections, 2016-2026**

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>Baltimore City 2026 (#)</th>
<th>Growth</th>
<th>Baltimore County 2026 (#)</th>
<th>Growth</th>
<th>Maryland 2026 (#)</th>
<th>Growth</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comp Sci + PLTW</td>
<td>Computer Occupations</td>
<td>10,682</td>
<td>6.2%</td>
<td>16,085</td>
<td>11.9%</td>
<td>125,310</td>
<td>6.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comp Sci</td>
<td>Computer User Support Specialists</td>
<td>1,032</td>
<td>8.0%</td>
<td>1,340</td>
<td>11.4%</td>
<td>11,777</td>
<td>6.6%</td>
<td>Some college</td>
<td>$42</td>
</tr>
<tr>
<td></td>
<td>Web Developers</td>
<td>544</td>
<td>7.7%</td>
<td>499</td>
<td>11.6%</td>
<td>5,616</td>
<td>7.7%</td>
<td>Associate's</td>
<td>$53</td>
</tr>
<tr>
<td></td>
<td>Computer Network Support Specialists</td>
<td>1,102</td>
<td>6.2%</td>
<td>898</td>
<td>10.2%</td>
<td>8,655</td>
<td>6.2%</td>
<td>Associate's</td>
<td>$51</td>
</tr>
<tr>
<td>Networking</td>
<td>Computer User Support Specialists</td>
<td>1,032</td>
<td>8.0%</td>
<td>1,340</td>
<td>11.4%</td>
<td>11,777</td>
<td>6.6%</td>
<td>Some college</td>
<td>$42</td>
</tr>
<tr>
<td></td>
<td>Computer Network Support Specialists</td>
<td>1,102</td>
<td>6.2%</td>
<td>898</td>
<td>10.2%</td>
<td>8,655</td>
<td>6.2%</td>
<td>Associate's</td>
<td>$51</td>
</tr>
</tbody>
</table>
Enrollment in the CISCO networking pathway remains high across the district, even after declining by over a third from 16-17 numbers; this is largely due to five schools sunsetting this pathway.

General computer science enrollment has stayed largely steady over the last few years.

The Oracle database pathway was sunsetted in 17-18.

Labor market projections for this cluster are strong across the city, county, and state. While all of these occupations pay above a living wage, they do require some type of postsecondary study or credential.
Information Technology: Pathways

**CISCO Networking**
- The majority of district enrollment is at Digital Harbor; enrollment has remained fairly consistent across the last few years.
- Five schools have sunsetted the pathway.
- There are four schools that have vacant positions in SY 2019-2020.

**Data Processing Tech**
- New classes were introduced in SY 19/20, but enrollment continues to decline.
Information Technology: Pathways

Computer Science

- Enrollment remains low across the district, with fewer than 40 students at each school in 19-20.
- Balto Poly Inst sunnsetted this pathway in 16-17.

IT Oracle Database

- Pathway at Digital Harbor was sunnsetted in 17-18.
For the three schools with a CISCO Networking pathway in SY15-16 and which had students still enrolled in SY18-19, very few students completed the program and even fewer obtained a certification.

More than 50% of students enrolled at Digital Harbor completed the Data Tech program of study.

Based on the ratio of enrollees, completers and concentrators across the IT pathways, students may be enrolling in these courses for elective credits.
Information Technology (2/4)

- Students enrolled in this cluster can earn a Microsoft or CISCO certification.
- Excluding the mandatory computer science course, enrollment in pathway is relatively high compared to other pathways.
- Opportunities to engage in this pathway is well distributed across the city.
Information Technology: CISCO Networking
Information Technology: Computer Science

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Information Technology: Data Tech

[Map with symbols indicating Pgm with filled position, Pgm with vacant position, and School with no pgm]
Manufacturing, Engineering and Technology
Information Technology

- **Maintain and strengthen** advanced manufacturing if the program can be tied to an apprenticeship / labor market occupation.
- **Reduce** PLTW Engineering opportunities because there is too much supply for what the market has available to for students without a BA, and very few complete or get certified.
Manufacturing, Engineering, and Technology (1)

Manufacturing jobs offer living wages but are projected to decline across the state.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>Baltimore City 2026 (#)</th>
<th>Growth</th>
<th>Baltimore County 2026 (#)</th>
<th>Growth</th>
<th>Maryland 2026 (#)</th>
<th>Growth</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>Metal Workers and Plastic Workers</td>
<td>1,539</td>
<td>-7.3%</td>
<td>1,845</td>
<td>1.6%</td>
<td>10,389</td>
<td>0.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer-Controlled Machine Tool Operators</td>
<td>468</td>
<td>0.0%</td>
<td>214</td>
<td>-5.7%</td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$31</td>
</tr>
<tr>
<td></td>
<td>Rolling Machine Setters, Operators &amp; Tenders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$32</td>
</tr>
<tr>
<td></td>
<td>Cutting, Punching &amp; Press Machine Setters,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$37</td>
</tr>
<tr>
<td></td>
<td>Operators &amp; Tenders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grinding, Lapping, Polishing &amp; Buffing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$37</td>
</tr>
<tr>
<td></td>
<td>Machine Tool Setters, Operators &amp; Tenders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Milling and Planing Machine Setters, Operators,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$35</td>
</tr>
<tr>
<td></td>
<td>and Tenders, Metal and Plastic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Molding, Coremaking &amp; Casting Machine</td>
<td>96</td>
<td>-27.3%</td>
<td>395</td>
<td>-8.1%</td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$27</td>
</tr>
<tr>
<td></td>
<td>Setters, Operators &amp; Tenders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiple Machine Tool Setters, Operators &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HSD/HSE</td>
<td>$25</td>
</tr>
<tr>
<td></td>
<td>Tenders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computer Numerically Controlled Machine Tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PostSec Cred</td>
<td>$45</td>
</tr>
<tr>
<td></td>
<td>Tool Programmers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Machinists</td>
<td>415</td>
<td>2.7%</td>
<td>784</td>
<td>4.5%</td>
<td>2,872</td>
<td>1.6%</td>
<td>HSD/HSE</td>
<td>$39</td>
</tr>
<tr>
<td></td>
<td>Tool and Die Makers</td>
<td>310</td>
<td>-4.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PostSec Cred</td>
<td>$43</td>
</tr>
</tbody>
</table>
Most engineering occupations require a Bachelor’s, but engineering technician occupations require a two-year degree and offer good wages. Data is limited on their availability in the city and county.

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupation</th>
<th>Baltimore City</th>
<th>Baltimore County</th>
<th>Maryland</th>
<th>Education</th>
<th>Entry wage (000s) in the city, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aerospace Engineering and Operations Technicians</td>
<td>127</td>
<td>299</td>
<td>1,007</td>
<td>Associate's</td>
<td>$43</td>
</tr>
<tr>
<td>PLTW Engi</td>
<td>Civil Engineering Technicians</td>
<td>145</td>
<td>757</td>
<td>4,215</td>
<td>Associate's</td>
<td>$54</td>
</tr>
<tr>
<td></td>
<td>Electrical and Electronics Engineering Technicians</td>
<td>111</td>
<td>547</td>
<td>1,752</td>
<td>Associate's</td>
<td>$57</td>
</tr>
<tr>
<td></td>
<td>Environmental Engineering Technicians</td>
<td>117</td>
<td>547</td>
<td>1,752</td>
<td>Associate's</td>
<td>$57</td>
</tr>
<tr>
<td></td>
<td>Industrial Engineering Technicians</td>
<td>145</td>
<td>757</td>
<td>4,215</td>
<td>Associate's</td>
<td>$54</td>
</tr>
<tr>
<td></td>
<td>Mechanical Engineering Technicians</td>
<td>78</td>
<td>1,752</td>
<td>2.6%</td>
<td>Associate's</td>
<td>$57</td>
</tr>
</tbody>
</table>

Manufacturing, Engineering, and Technology (2)
There is limited labor market demand data at the city and county level for manufacturing, but most occupations within this pathway pay above a living wage. While on the decline across the state, there do seem to be a sufficient number of openings and most do not require postsecondary study.

While engineering provides an above living wage and a few related occupations are predicted to grow, there is a low total number of available opportunities in this pathway and all require at least an Associate's degree.

Enrollment in the PLTW pathway has been steadily declining across the last five years, while manufacturing has remained relatively stable.
Manufacturing, Engineering, and Technology: Advanced Manufacturing & PLTW Engineering

**Advance Manufacturing**
- Enrollment has declined since 16-17.
- Currently only offered at Carver Voc-Tech, with fewer than 25 students in the pathway.

**PLTW Engineering**
- Districtwide enrollment has been fairly consistent across the last 4 years.
- The majority of enrollment is at Balto Poly Inst; BD Jemison STEM has fewer than 25 enrolled in 19-20.
Manufacturing, Engineering and Technology

- Manufacturing jobs offer living wages but are projected to decline across the state.
- It is unclear if courses taught in the manufacturing pathways will lead to traditional manufacturing certifications (e.g., CNC milling, drill press, etc.)
- Most engineering occupations require a BA; engineering technician occupations require a two-year degree and offer good wages.
Manufacturing, Engineering, and Technology: Advanced Manufacturing
Manufacturing, Engineering, and Technology: PLTW Engineering

Note that Baltimore Polytechnic and Western High School both offer this program. At this zoom level, their points on the map overlap.
Transportation Technologies
Transportation Technologies

- **Maintain and strengthen** automotive technician pathway to ensure alignment with the postsecondary credentialing requirement.

- **Maintain and strengthen** auto-body collision repair technician pathway given that there is some demand for this occupation. BCPS should consider strengthening the curriculum to align to vehicle mechanics and installers as there is greater growth in those occupations.

- **Maintain and strengthen** local seagoing / maritime pathway owing to growing labor market demand but limited numbers of available positions.
Transportation Technologies

Entry-level jobs in occupations related to automotive repair pay a living wage and they are expected to grow across the state, but the number of jobs available in Baltimore city is low. For example, there were about 220 jobs for “Automotive Body and Related Repairers” in 2018 in the city, down from 340 in 2012 (projections for this occupation are not available). The number of jobs for “Water Transportation Workers” are expected to grow in the city, and entry-level jobs in these occupations pay a living wage. Some of these jobs — like “Sailors and Marine Oilers” — require on-the-job training; there were about 380 jobs for “Sailors and Marine Oilers” in the city in 2017 but growth projections are not available.
Transportation Technologies

- Automotive technicians are predicted to grow slightly at the city level, with slightly larger growth at the county and state level. These occupations provide a living wage but require postsecondary certification.

- Automotive repair occupations pay a living wage without a postsecondary certification requirement and are expected to grow across the state.

- Enrollment in the autotechnician pathway has declined over the last two years, but remains the most popular pathway in this cluster. Auto repair has remained relatively stable over the last few years with a slight decline in 19-20.
Transportation Technology: Automotive Technician and Autobody Collision Repair Technician

**Automotive Technician**
- Enrollment at Forest Park and Mergenthaler Voc-Tech has been fairly consistent across the last three years.
- New Hope sunsetted this pathway after 18-19.
- Edmondson-Westside saw enrollment drop by around 50% from 17-18 to 18-19, but remained fairly level in 19-20.

**Autobody Collision Repair Technician**
- Enrollment at Mergenthaler Voc-Tech declined slightly in 19-20 after two years of higher enrollment.
Transportation Technology: Local Seagoing / Maritime

Local Seagoing / Maritime

- New Era Academy saw a slight decline in 19-20 after two years of growth.
Transportation Technologies (1/2)

- Entry-level jobs in occupations related to automotive repair pay a living wage and are expected to grow across the state.

- By 2026, occupations are expected to grow in the auto tech pathway by about 3,000 positions, but students are likely to need PS credentialing.
The number of jobs for “Water Transportation Workers” are expected to grow in the city, and entry-level jobs in these occupations pay a living wage.

There is only one program currently operating in BCPS (New Era)
Transportation Technologies: **Automotive Technician**
Transportation Technologies: Autobody Collision Repair Technician

- Pgm with filled position
- Pgm with vacant position
- School with no pgm
Transportation Technologies: Local Seagoing / Maritime